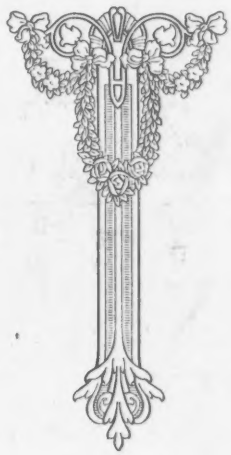
# FACTS and FIGURES

## of, by and for the

# Automobile Industry



April, 1919

National Automobile Chamber of Commerce, Inc.
7 East Forty-second Street
New York City

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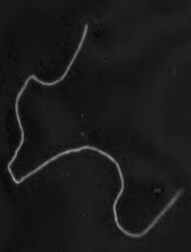
## Contents


| | Page |
|---|---|
| Introduction | 1 |
| Organization of N. A. C. C. | 2 |
| Members of N. A. C. C. | 3 |
| Magnitude of American Automobile Industry | 4 |
| Automobile Industry's Relation to Other Industries | 5 |
| Wonders of the Automobile Industry | 6 |
| Distribution of Manufacturers by States | 7 |
| Vitality Record of the Industry | 7 |
| Automobile Trade by Classes and States | 7 |
| War's Effect on the Automobile Industry | 8 |
| Military Articles Supplied Government by Automobile Factories | 9 |
| Motor Vehicle Production in United States | 9 |
| Unfairness of Plans to Increase Taxes on Motor Vehicles | 11 |
| Statistics of Automobile Dealers' Business | 12 |
| Canadian Automobile Statistics | 12 |
| Output of Petroleum Refineries | 12 |
| Quantities of Metals and Rubber Used in Automobiles | 13 |
| Rubber Tire Production in the United States | 13 |
| Occupation of Passenger Car Users | 13 |
| Pennsylvania Farmer Users | 14 |
| Motor Truck as an Essential | 14 |
| Motor Trucks Operated in Leading Industries | 15 |
| Random Facts Relating to Farmer Use of Motor Trucks | 16 |
| More About Farmer's Use of Trucks | 17 |
| Cost of Horses on Farms | 17 |
| Iowa Farmer's Use of Trucks and Tractors | 18 |
| Registration of Motor Vehicles in United States | 19 |
| Ratio of Automobiles to Population and Highway and Railroad Mileage in Selected States | 21 |
| New York State Registration | 22 |
| Automobile Markets of the World | 23 |
| Exports of Motor Vehicles | 24-30 |
| Exports of Parts, Engines and Tires | 30-31 |
| Imports of Motor Vehicles | 31 |
| Index | 32 |



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# Introduction

"Facts and Figures" gathers between two covers rather more statistical information concerning the automobile industry than, we believe, has ever before been so presented, but it is not offered as in any sense complete. At least, however, it is sufficiently comprehensive to give a striking impression of the importance of our third largest manufacturing industry, and will have accomplished its main purpose if it helps to direct attention to the injustice of over taxing such a great industry as though it were detrimental to the country when, in truth, as these figures conclusively demonstrate, it has been, is and will continue to be of almost inestimable benefit to the nation's welfare and prosperity.

It is a question if any other manufacturing industry can produce such an abundance of, or so accurate records to prove definitely its indispensibility to commercial progress and human comfort and convenience.

Not only is unfair taxation an injustice, but ill-considered restrictive legislation of any kind that retards the development of the most efficient and economical transportation by highway is harmfully retroactive against its promulgators and hence is to be discouraged.

This booklet has been compiled to be useful to those within and informative to those without the industry that the general public may have a better conception of its magnitude and far-reaching influence extending now into practically every activity in which mankind engages. What it produces affects every business or individual as a transporting agency and the making of its product and what it uses gives employment to millions of people.

While marveling at the wonderful place that the automobile industry has attained in scarce a generation of existence, it is to be realized that it would not have been possible without the better roads and more good ones that have been built concurrently. By the same token further advance is most directly dependent upon continued and amplified endeavor to push highway improvement everywhere that transportation is a factor.

Acknowledgment is made for the assistance which those have rendered who supplied information and, except where the sources are unknown, credit has been directly given throughout the booklet.

Discrepancies will be discovered in figures from different sources. This is unavoidable and the National Automobile Chamber of Commerce does not hold itself responsible for the accuracy of figures from unofficial sources, although care has been taken to select only the most authorative data.

Information of a kind that never has been collected is frequently requested. The present compilation contains substantially all of the data in hand at the time. Additional statistics collected from time to time will be included in subsequent revisions.

"Facts and Figures" will answer many of the questions that daily come to the National Automobile Chamber of Commerce for attention and be the means of saving considerable time and effort now expended on correspondence. It is the intention from time to time to issue new editions of the publication revised to date and amplified as needs for additional information develop. It goes without saying that the co-operation of all who can contribute valuable material to its pages will be appreciated, and criticisms and suggestions will be welcomed at all times that its usefulness may be enhanced.

NATIONAL AUTOMOBILE CHAMBER OF COMMERCE, Inc.

Organization of

# National Automobile Chamber of Commerce, Inc.

7 East 42d Street, New York, U. S. A.

Washington, D.C. Detroit, Mich.

## Officers

CHARLES CLIFTON, *President*.....Pierce-Arrow Motor Car Company
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Motor Truck Division
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H. H. RICE, *Treasurer*.....Chevrolet Motor Company
ALFRED REEVES, *General Manager*.....National Automobile Chamber of Commerce
S. A. MILES, *Show Manager*.....National Automobile Chamber of Commerce

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VICTOR L. BROWN.....Sterling Motor Truck Company
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### Truck Standards Committee

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FRANCIS W. DAVIS.....Pierce-Arrow Motor Car Company
F. A. WHITTEN.....General Motors Truck Company
B. M. STERNBERG.....Sterling Motor Truck Company
F. F. BEALL.....Packard Motor Car Company
This committee to co-operate with Truck Standards Committee of Society of Automotive Engineers.

### Committee on Standard Repair Parts and Service Policies

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H. W. DREW.....Packard Motor Car Company
W. M. LADD.....Pierce-Arrow Motor Car Company
A. B. CUMNER.....Autocar Company
W. M. BRITTON.....Republic Motor Truck Company

# Members National Automobile Chamber of Commerce, Inc.

## Passenger Car Manufacturers

| *Trade Name of Car* | *Members* | *Address* |
|---|---|---|
| Allen | Allen Motor Company | Columbus, Ohio |
| Anderson | Anderson Motor Company | Rock Hill, S. C. |
| Apperson | Apperson Bros. Automobile Co. | Kokomo, Ind. |
| Auburn | Auburn Automobile Company | Auburn, Ind. |
| Austin | Austin Automobile Company | Grand Rapids, Mich. |
| Baker | Baker R & L Company | Cleveland, Ohio |
| Brewster | Brewster & Company | Long Island City, N. Y. |
| Briscoe | Briscoe Motor Corporation | Jackson, Mich. |
| Buick | Buick Motor Company | Flint, Mich. |
| Cadillac | Cadillac Motor Car Company | Detroit, Mich. |
| Case | J. I. Case T. M. Company | Racine, Wis. |
| Chalmers | Chalmers Motor Company | Detroit, Mich. |
| Chandler | Chandler Motor Car Company | Cleveland, Ohio |
| Chevrolet | Chevrolet Motor Co. | New York, N. Y. |
| Cole | Cole Motor Car Company | Indianapolis, Ind. |
| Columbia | Columbia Motors Company | Detroit, Mich. |
| Crow-Elkhart | Crow-Elkhart Motor Company | Elkhart, Ind. |
| Cunningham | Jas. Cunningham Son & Company | Rochester, N. Y. |
| Davis | Geo. W. Davis Motor Car Company | Richmond, Ind. |
| Detroit Electric | Anderson Electric Car Company | Detroit, Mich. |
| Dodge Brothers | Dodge Brothers | Detroit, Mich. |
| Dorris | Dorris Motor Car Company | St. Louis, Mo. |
| Dort | Dort Motor Car Company | Flint, Mich. |
| Elcar | Elkhart Carriage & Motor Car Co. | Elkhart, Ind. |
| Elgin | Elgin Motor Car Company | Chicago, Ill. |
| Empire | Empire Autombile Company | Indianapolis, Ind. |
| FIAT | F. I. A. T. | New York City |
| Franklin | H. H. Franklin Manufacturing Co. | Syracuse, N. Y. |
| Glide | The Bartholomew Company | Peoria, Ill. |
| Grant | Grant Motor Car Corporation | Cleveland, Ohio |
| Hackett | Hackett Motor Car Company | Grand Rapids, Mich. |
| Haynes | Haynes Automobile Company | Kokomo, Ind. |
| Hollier | Lewis Spring & Axle Company | Chelsea, Mich. |
| Hudson | Hudson Motor Car Company | Detroit, Mich. |
| Hupmobile | Hupp Motor Car Corporation | Detroit, Mich. |
| Inter-State | Inter-State Motor Company | Muncie, Ind. |
| Jackson | Jackson Automobile Company | Jackson, Mich. |
| Jones | Jones Motor Car Company | Wichita, Kan. |
| Jordan | Jordan Motor Car Company | Cleveland, Ohio. |
| King | King Motor Car Company | Detroit, Mich. |
| Kissel Kar | Kissel Motor Car Company | Hartford, Wis. |
| Kline Kar | Kline Car Corporation | Richmond, Va. |
| Lexington | Lexington Motor Company | Connersville, Ind. |
| Liberty | Liberty Motor Car Company | Detroit, Mich. |
| Lincoln | Lincoln Motor Company | Detroit, Mich. |
| Locomobile | Locomobile Company of America | Bridgeport, Conn. |
| McFarlan | McFarlan Motor Company | Connersville, Ind. |
| Marmon | Nordyke & Marmon Company | Indianapolis, Ind. |
| Maxwell | Maxwell Motor Company | Detroit, Mich. |
| Mercer | Mercer Automobile Company | Trenton, N. J. |
| Milburn Electric | Milburn Wagon Company | Toledo, Ohio |
| Mitchell | Mitchell Motors Company | Racine, Wis. |
| Moline-Knight | Root & Van Dervoort Eng. Co. | East Moline, Ill. |
| Moon | Moon Motor Car Company | St. Louis, Mo. |
| Nash | Nash Motors Company | Kenosha, Wis. |
| National | National Motor Car & Vehicle Corp. | Indianapolis, Ind. |
| Oakland | Oakland Motor Car Company | Pontiac, Mich. |
| Oldsmobile | Olds Motor Works | Lansing, Mich. |
| Overland | Willys-Overland Company | Toledo, Ohio |
| Owen Magnetic | Baker R & L Company | Cleveland, Ohio |
| Packard | Packard Motor Car Company | Detroit, Mich. |
| Paige | Paige-Detroit Motor Car Co. | Detroit, Mich. |
| Paterson | W. A. Paterson Company | Flint, Mich. |
| Peerless | Peerless Motor Car Company | Cleveland, Ohio |
| Pierce-Arrow | Pierce-Arrow Motor Car Co. | Buffalo, N. Y. |
| Pilot | Pilot Motor Car Company | Richmond, Ind. |
| Premier | Premier Motor Corporation | Indianapolis, Ind. |
| Rauch & Lang | Baker R & L Company | Cleveland, Ohio |
| Reo | Reo Motor Car Company | Lansing, Mich. |
| Roamer | Barley Motor Car Company | Kalamazoo, Mich. |
| Saxon | Saxon Motor Car Corporation | Detroit, Mich. |
| Scripps-Booth | Scripps-Booth Corporation | Detroit, Mich. |
| Simplex Crane | Simplex Automobile Company | New Brunswick, N. J. |
| Standard | Standard Steel Car Company | Pittsburgh, Pa. |
| Stearns-Knight | F. B. Stearns Company | Cleveland, Ohio |
| Stephens Six | Moline Plow Co., Stephens Motor Branch | Moline, Ill. |
| Studebaker | Studebaker Corporation | South Bend, Ind. |
| Stutz | Stutz Motor Car Company | Indianapolis, Ind. |
| Velie | Velie Motors Corporation | Moline, Ill. |
| Westcott | Westcott Motor Car Company | Springfield, Ohio |
| White | White Motor Company | Cleveland, Ohio |
| Willys-Knight | Willys-Overland Company | Toledo, Ohio |
| Winton | The Winton Company | Cleveland, Ohio |

## Motor Truck Manufacturers

| *Trade Name of Car* | *Members* | *Address* |
|---|---|---|
| Acme | Acme Motor Truck Co. | Cadillac, Mich. |
| Am. La France | American La France Fire Engine Co. | Elmira, N. Y. |
| Atterbury | Atterbury Motor Car Company | Buffalo, N. Y. |
| Autocar | Autocar Company | Ardmore, Pa. |
| Avery | The Bartholomew Company | Peoria, Ill. |
| Bethlehem | Bethlehem Motors Corp. | Allentown, Pa. |
| Briscoe | Briscoe Motor Corp. | Jackson, Mich. |
| Brockway | Brockway Motor Truck Company | Cortland, N. Y. |
| Buick | Buick Motor Company | Flint, Mich. |
| Chevrolet | Chevrolet Motor Company | New York, N. Y. |
| Clydesdale | Clyde Cars Company | Clyde, Ohio |
| Commerce | Commerce Motor Car Company | Detroit, Mich. |
| Corbitt | Corbitt Motor Truck Company | Henderson, N. C. |
| Cunningham | Jas. Cunningham Son & Co. | Rochester, N. Y. |
| Denby | Denby Motor Truck Company | Detroit, Mich. |
| Diamond T | Diamond T. Motor Car Co. | Chicago, Ill. |
| Dodge Brothers | Dodge Brothers | Detroit, Mich. |
| Dorris | Dorris Motor Car Co. | St. Louis, Mo. |
| Duplex | Duplex Truck Company | Lansing, Mich. |
| Federal | Federal Motor Truck Company | Detroit, Mich. |
| Garford | Garford Motor Truck Company | Lima, Ohio |
| G M C | General Motors Truck Company | Pontiac, Mich. |
| Grant | Grant Motor Car Corporation | Cleveland, Ohio. |
| International | International Harvester Corp. | Chicago, Ill. |
| Inter-State | Inter-State Motor Co. | Muncie, Ind. |
| Kelly | Kelly-Springfield Motor Truck Co. | Springfield, Ohio |
| Kissel | Kissel Motor Car Company | Hartford, Wis. |
| Kleiber | Kleiber & Company | San Francisco, Cal. |
| Maccar | Maccar Truck Company | Scranton, Pa. |
| Mack | Mack Brothers Motor Car Co. | New York, N. Y. |
| Maxwell | Maxwell Motor Company | Detroit, Mich. |
| Milburn Electric | Milburn Wagon Company | Toledo, Ohio |
| Moreland | Moreland Motor Truck Company | Los Angeles, Cal. |
| Nash | Nash Motors Company | Kenosha, Wis. |
| Oneida | Oneida Motor Truck Company | Green Bay, Wis. |
| Overland | Willys-Overland Company | Toledo, Ohio |
| Packard | Packard Motor Car Company | Detroit, Mich. |
| Paige | Paige-Detroit Motor Car Company | Detroit, Mich. |
| Peerless | Peerless Motor Car Company | Cleveland, Ohio |
| Pierce-Arrow | Pierce-Arrow Motor Car Co. | Buffalo, N. Y. |
| Reo | Reo Motor Car Company | Lansing, Mich. |
| Republic | Republic Motor Truck Company | Alma, Mich. |
| Riker | Locomobile Co. of America | Bridgeport, Conn. |
| Rowe | Rowe Motor Manufacturing Co. | Lancaster, Pa. |
| Sanford | Sanford Motor Truck Co. | Syracuse, N. Y. |
| Saurer | Saurer Motor Company | New York City |
| Schacht | G. A. Schacht Motor Truck Co. | Cincinnati, Ohio |
| Selden | Selden Motor Vehicle Company | Rochester, N. Y. |
| Service | Service Motor Truck Company | Wabash, Ind. |
| Standard | Standard Motor Truck Company | Detroit, Mich. |
| Sterling | Sterling Motor Truck Company | Milwaukee, Wis. |
| Stewart | Stewart Motor Corporation | Buffalo, N. Y. |
| Studebaker | Studebaker Corporation | South Bend, Ind. |
| United | United Motors Company | Grand Rapids, Mich. |
| Velie | Velie Motors Corporation | Moline, Ill. |
| Vim | Vim Motor Truck Company | Philadelphia, Pa. |
| Walter | Walter Motor Truck Company | New York, N. Y. |
| Ward | Ward Motor Vehicle Co. | Mt. Vernon, N. Y. |
| White | White Motor Company | Cleveland, Ohio. |
| Wilson | J. C. Wilson Company | Detroit, Mich. |

# Magnitude of the American Automobile Industry

*(Compiled in January, 1918, by National Automobile Chamber of Commerce, from various sources)*

**Importance of the automobile industry to the prosperity of the country and of the automobile and motor truck to the daily needs of the American public is shown by the amount of capital invested and the great sums of money kept in active circulation by purchase of materials and payment of wages; the hundreds of thousands of persons dependent entirely upon the industry for a livelihood for themselves and their families, and the increased wealth brought to American workingmen and investors by the exportation of motor vehicles and parts.**

**That the American public appreciates the utility of the motor car and considers it a necessity is revealed by the surprising number in use, amounting to more than 5,000,000 at the end of 1917. From two to three times as many automobiles in proportion to population are owned in the Central and Western States as in the manufacturing States of the East, showing that the farmer, who needs transportation most, appreciates the facilities for quick and convenient transportation supplied by the motor car.**

**It is significant of the importance of the motor truck to the industry and commerce of the country that in the railroad freight congestion in 1917 the 435,000 trucks in use hauled about 1,200,000,000 tons of materials and merchandise during the year. And in view of the demand for increased production of foods, it is highly important that 10,000,000 acres of land were released by the use of motor trucks instead of horses, which require five acres of land each for their support.**

## (1) Motor Car Manufacturers

| | |
|---|---|
| Motor vehicle manufacturers in United States | 550 |
| Commercial vehicle manufacturers | 372 |
| Passenger vehicle manufacturers | 238 |
| States in which factories are located | 32 |
| Capital invested | $736,000,000 |
| Workers employed | 280,000 |
| Wages and salaries paid year ended June 30, 1917 | $275,000,000 |
| Motor vehicles produced in 1917 | 1,878,878 |
| Passenger cars produced in 1917 | 1,718,778 |
| Commercial cars produced in 1917 | 160,100 |
| Wholesale value of vehicles produced in 1917 | $1,249,390,618 |
| Paid for parts and materials by automobile manufacturers during year ended June 30, 1917 | $480,000,000 |
| Average retail price of passenger cars produced in 1917 | $727 |

## (2) Body, Parts and Accessory Makers

| | |
|---|---|
| Number of concerns manufacturing some article used in the automobile trade | 6,789 |
| Body, parts and accessory makers in United States | 1,080 |
| Capital invested by body, parts and accessory makers | $336,000,000 |
| Workers employed by body, parts and accessory makers | 320,000 |
| Wages and salaries paid during year ended June 30, 1917, at $900 per man | $288,000,000 |
| Automobile tires manufactured, fiscal year 1916-7 | 18,000,000 |
| Value of tires manufactured, fiscal year 1916-7 | $450,000,000 |

## (3) Dealers, Garages, Etc.

| | |
|---|---|
| Total dealers, garages, repair shops, etc., in United States | 46,000 |
| Automobile and truck dealers in United States | 27,800 |
| Garages | 25,500 |
| Automobile repair shops | 13,500 |
| Tire vulcanizers | 12,000 |
| Automobile supply houses | 2,550 |
| Jobbers of automobile supplies | 282 |
| Capital invested by dealers, garages, etc., estimated at $4,000 each | $184,000,000 |
| Workers employed, estimated average of 5 each | 230,000 |
| Wages paid, estimated at $800 per man | $184,000,000 |

## (4) Automobile Exports

| | |
|---|---|
| Value of automobiles, trucks, tires and parts exported in 1917 | $135,750,000 |
| Number of passenger automobiles exported in 1917 | 64,448 |
| Value of passenger cars exported in 1917 | $51,800,000 |
| Number of commercial cars exported, fiscal year ended June 30, 1917 | 14,866 |
| Value of commercial cars exported, fiscal year ended June 30, 1917 | $37,820,000 |
| Value of engines, tires and parts exported, fiscal year ended June 30, 1917 | $46,129,000 |

## (5) Motor Vehicles in Use

| | |
|---|---|
| Motor vehicles registered in United States January 1, 1918 | 5,148,000 |
| Motor vehicles in New York State | 418,000 |
| Motor trucks in use in United States | 435,000 |
| Tons of goods hauled yearly by trucks (estimated) | 1,200,000,000 |
| Cost of haulage by motor trucks at 18c per ton-mile | $1,080,000,000 |
| Cost of haulage on basis of 24c per ton-mile by horse and wagon | $1,440,000,000 |
| Value of passenger service at railroad rate of 2 cents per mile | $1,152,600,000 |
| Number of persons in United States to one motor car | 21 |
| Persons to 1 car in eleven Middle West States | 17 |
| Persons to 1 car in 11 Eastern States | 26 |
| Percentage of cars sold to farmers in 1917 (estimated) | 40 |
| Automobiles in U. S. to each mile of public road | 1.72 |
| Automobiles in U. S. to each mile of surfaced road | 14.77 |
| Automobiles in U. S. for each square mile | 1.4 |
| Automobiles in use in all countries outside of the United States January 1, 1917 | 719,246 |
| Automobiles in use in Europe January 1, 1917 | 437,558 |
| Automobiles in use in Canada January 1, 1917 | 118,086 |
| Horses in the United States | 24,000,000 |
| Acres of land required to sustain horses | 120,000,000 |
| Horses displaced by motor trucks in use (estimated) | 2,000,000 |
| Acres of land released by trucks for production of human foods | 10,000,000 |
| Horses and mules exported during three years ended June 30, 1917 | 1,239,959 |

## (6) Census of the Automobile Industry

*(Compiled by the Bureau of the Census)*

Automobile Establishments, Including Body and Parts Plants

| | 1899 | 1904 | 1909 | 1914 |
|---|---|---|---|---|
| Number of establishments | 57 | 178 | 743 | 1,271 |
| Capital invested | $5,769,000 | $23,084,000 | $173,837,000 | $407,730,000 |
| Persons engaged in manufacture | ..... | 13,333 | 85,359 | 145,951 |
| Value of products | $4,748,000 | $30,034,000 | $249,202,000 | $632,831,000 |
| Paid for materials | $1,804,000 | $13,151,000 | $131,646,000 | $356,208,000 |
| Wages and salaries | $1,616,000 | $8,416,000 | $58,173,000 | $139,453,000 |

## (7) Freight Car Load Shipments from Automobile Factories

*(Compiled by National Automobile Chamber of Commerce, from reports by members and Ford Motor Co.)*

| Year | 1914 | 1915 | 1916 | 1917 | 1918 |
|---|---|---|---|---|---|
| January | 11,114 | 9,069 | 21,202 | 23,292 | 11,528 |
| February | 12,172 | 11,973 | 23,581 | 22,385 | 12,030 |
| March | 15,067 | 17,192 | 29,622 | 29,443 | 16,728 |
| April | 16,222 | 18,912 | 27,689 | 27,700 | 17,797 |
| May | 12,405 | 15,392 | 25,120 | 26,451 | 17,833 |
| June | 8,617 | 17,075 | 24,558 | 21,524 | 15,869 |
| July | 5,605 | 14,317 | 18,451 | 19,993 | 13,741 |
| August | 9,612 | 16,959 | 21,237 | 22,044 | 13,868 |
| September | 12,209 | 18,940 | 22,089 | 20,538 | 10,897 |
| October | 12,003 | 17,848 | 19,876 | 21,403 | 10,667 |
| November | 7,710 | 17,138 | 18,169 | 18,942 | 9,254 |
| December | 7,378 | 17,760 | 19,580 | 15,827 | 11,258 |
| Total | 130,114 | 192,575 | 271,174 | 269,542 | 161,470 |

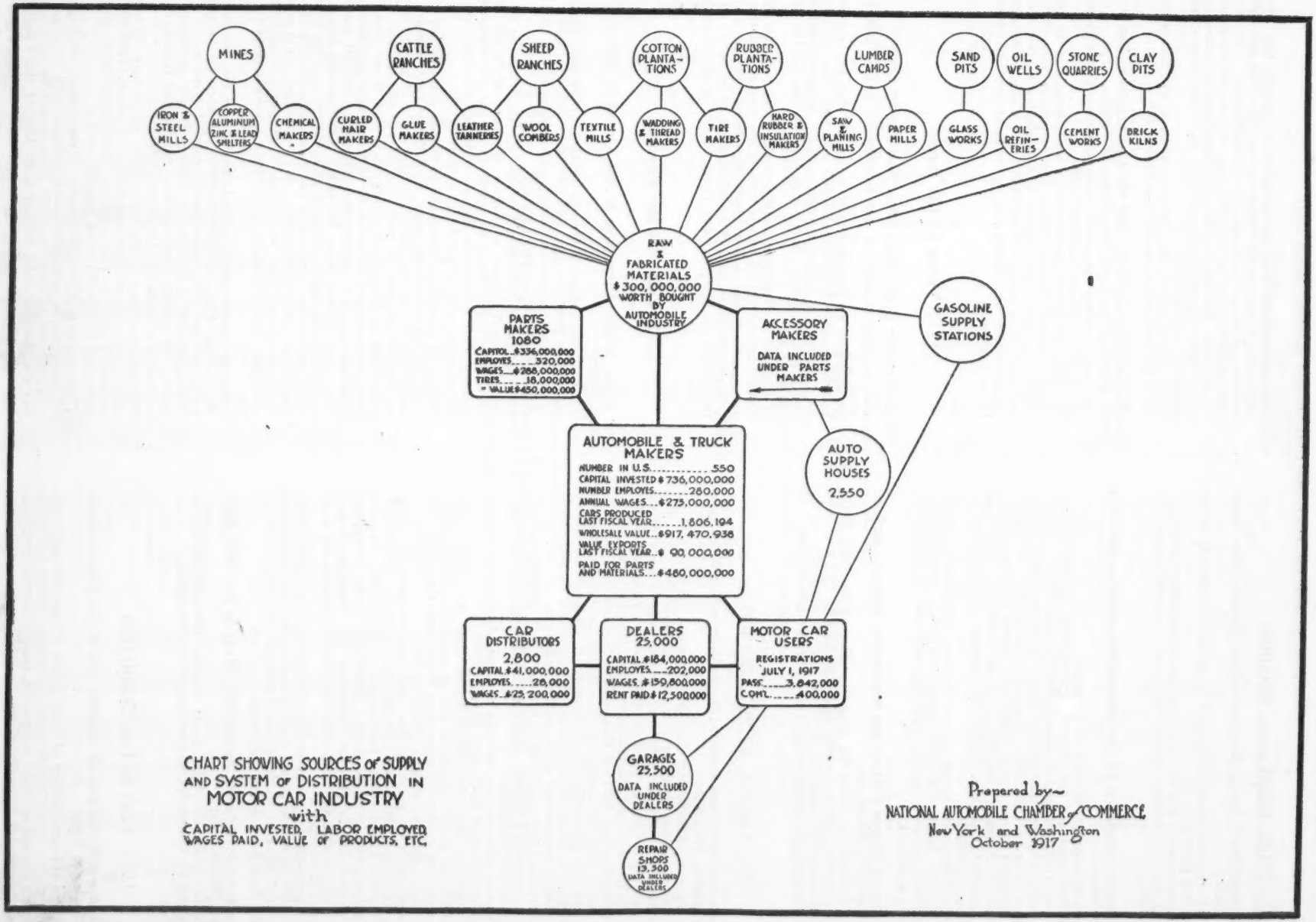



CHART SHOWING SOURCES of SUPPLY AND SYSTEM of DISTRIBUTION IN MOTOR CAR INDUSTRY with CAPITAL INVESTED, LABOR EMPLOYED, WAGES PAID, VALUE of PRODUCTS, ETC.

Prepared by—
NATIONAL AUTOMOBILE CHAMBER of COMMERCE
New York and Washington
October 1917

# Wonders of the Automobile Industry

*(Issued by the National Automobile Chamber of Commerce, March, 1918)*

## (8) Employees, 830,000

**The Automobile Industry Employs 830,000 People. This Number Equals:**

Half as many as are employed by all of the railroads of the United States.

Approximately 8% of all the people engaged in manufacturing and mechanical industries whose number totals 10,658,881.

**The People Employed by the Automobile Industry and their Dependents:**

Would populate the city of Chicago.

Would populate the city of Philadelphia (1,549,008), St. Louis (687,029), and Boston (670,585) combined.

Would populate any one of these 12 states: Iowa (2,358,066), Kansas (1,672,545), Kentucky (2,289,905), Minnesota (2,075,708), New Jersey (2,537,167), North Carolina (2,206,287), Tennessee (2,184,789), Virginia (2,061,612), Wisconsin (2,333,866), California (2,377,549), Georgia (2,609,121) or Indiana (2,700,876).

Would populate seven states: Arizona (204,354), Delaware (202,322), Idaho (325,594), Maine (742,371), Nebraska (1,192,214), New Hampshire (430,572) and New Mexico (327,301) combined.

**The Annual Wages Paid by the Automobile Industry Amount to $747,000,000, Which Is:**

More than 2¼ times the gross revenue of the Post Office Department, which, in 1917, was $229,726,116.

Approximately equal to all of the gold in circulation in the United States, which, in 1917, amounted to $764,412,156.

## (9) Capital, $1,297,000,000

**The Amount of Capital Invested in the Automobile Industry is $1,297,000,000, Which Is:**

Greater by $250,000,000 than the capitalization of all of the national banks, which, in 1917, was $1,079,669,000.

Greater than the combined outstanding capital stock of the New York Central ($247,887,400), Pennsylvania ($499,265,700), Chicago and Northwestern ($145,165,810) and Chicago, Milwaukee and St. Paul Railroads ($233,686,200).

Greater than the combined outstanding capital stock of the Santa Fe ($344,697,470), Baltimore & Ohio ($212,314,800), Boston & Maine ($42,655,271), and Canadian Pacific ($259,994,000), and several other smaller railroads.

More than twice as great as the combined outstanding capital stock ($557,701,611) of the entire Standard Oil group of thirty-five companies.

Greater than the net ordinary receipts of the U. S. Government, which, in 1916, were $1,122,576,000.

Greater by more than $1,000,000,000 than the entire capital of all (251 fire, 39 marine, 37 life, 72 casualty) insurance companies and greater by more than 50 per cent. than their combined capital and surplus ($803,972,664).

Four times as great as the combined outstanding capital stock of the Bethlehem ($74,356,000), Cambria ($45,000,000), Crucible ($50,000,000), Lackawanna ($23,097,500), Republic ($52,352,000), Sloss-Sheffield ($10,000,000), Steel companies, Guggenheim Exploration Company, the Superior Copper Company and all other steel companies except the U. S. Steel Corporation.

The capital employed in the manufacture of parts ($336,000,000 is nearly 50 per cent. greater than the outstanding capital stock of all the gas and electric companies listed on the New York Stock Exchange.

**The Wholesale Value of Automobiles Made in 1917 Was $917,470,938, Which Was:**

About twice the total gross income ($494,580,601.10) received by the twelve largest insurance companies.

## (10) Cars in Use, 5,000,000

**There Are 5,000,000 Cars in Regular Use in the United States. This Indicates That:**

At an average mileage of 3,000, which is low, the total mileage equals 15,000,000,000 miles per annum, which, multiplied by an average of three passengers, means that the total passenger mileage is 45,000,000,000.

The passenger mileage of automobiles exceeds that of the railroads by over 10,000,000,000 miles. (In 1915 the official railroad passenger mileage was 32,384,247,563).

Automobiles, on a basis of 300 days of use and an average of only two passengers, carried 3,000,000,000 persons, compared with the railroads' total of 1915, the latest figures available, of 976,303,602.

The value of automobile transportation at the railroad rate of 2c. per mile would have been $900,000,000.

**The Seating Capacity of the 5,000,000 Automobiles in Use in the United States is Not Less Than 25,000,000 People.**

The total seating capacity of railroads cars, of which there are 55,705, is about 3,500,000 people.

To carry the people now carried by automobiles an equal distance would require 60,000 new passenger cars ($11,000 each) at a cost of $660,000,000, 14,972 new locomotives ($35,000 each) at a cost of $524,000,000, and duplication of passenger tracks, depots and employees at an expense impossible to calculate.

## (11) Value to the Army

**The Automobile Could Have Done This for the Army:**

The carrying capacity of our automobiles is 25,000,000 persons.

Traveling at an average of 100 miles per day and assuming that our whole army of 1,000,000 men had been mobilized on October 1st, our automobiles could, between that date and the end of May, have carried every man in the army 600,000 miles.

If automobiles had been used instead of the railroads, they could have carried all of our men to the camps, and thence, as required, to the seaboard without serious loss of time.

Our automobiles could carry all of the men in the contending armies in Europe from Paris to Berlin in forty-eight hours.

## (12) Value to the Farmer

**The Value of the Automobile to the Farmer is Indicated by These Facts:**

The increase in farm values during the twenty years prior to the end of 1900 averaged $400,000,000 annually. During the same time our population increased, roughly, 50 per cent., or 2½ per cent. per annum.

The increase in farm values in the 16 years following (these are the latest figures available) averaged $1,300,000,000 a year, over three times as much as in the pre-automobile period. Our population increased during the same period 33 per cent., or 2 per cent. per annum.

While the population increased in the 20 years 50 per cent. and farm values 57 per cent., or 3.35 per cent. a year, the population in the 16 years increased only 33 per cent. and the farm values 100 per cent., or 6.25 per cent. a year. The percentage of increase of population fell off 17 per cent., but farm values gained 33 per cent. in the 16-year period.

Farmers use, at a conservative estimate, 2,000,000 automobiles every day and drive, let us say, a ridiculously low average of 10 miles a day, a total of 20,000,000 miles a day. At 20 miles an hour for 10 hours a day it would represent 100,000 days a day or 100,000 years a year. If horses were substituted, the loss of time would be 300,000 years in each year, multiplied by the number of persons usually carried in the car.

If the car were occupied by only one person, the loss of production would exceed $250,000,000, which must be multiplied by the number of persons usually carried in the car.

The automobile is used in the country for the service of the farmer, by doctors, mail carriers, commercial travelers, livery stable owners and telephone companies.

The disappearance of the automobile would make it necessary to increase the horse population by about 25,000,000. It requires 5 acres to feed a horse. This would mean that an additional 125,000,000 acres must be used.

There are now 25,000,000 horses. If these could be disposed of, automobiles substituted and wheat raised on the land now required to feed them, its value would be sufficient to pay the National debt, including the Liberty Bond issues to date.

# (13) Distribution of Manufacturers by States

*(Compiled by Automobile Trade Directory, January, 1919)*

| State | Cars | Trucks | Motor-cycles | Tractors | Air-craft | En-gines | Number of Names |
|---|---|---|---|---|---|---|---|
| Alabama | ... | ... | ... | ... | ... | ... | ... |
| Arizona | ... | ... | ... | ... | ... | ... | ... |
| Arkansas | ... | ... | ... | 1 | ... | ... | 1 |
| California | 2 | 12 | ... | 7 | 2 | ... | 20 |
| Colorado | 1 | ... | ... | ... | ... | ... | 1 |
| Connecticut | 2 | 2 | ... | ... | 1 | 2 | 6 |
| Delaware | ... | ... | ... | ... | ... | ... | ... |
| Dist. of Col. | ... | 1 | ... | ... | ... | ... | 1 |
| Florida | ... | ... | ... | ... | ... | ... | ... |
| Georgia | 1 | 2 | ... | ... | ... | ... | 3 |
| Idaho | ... | ... | ... | ... | ... | ... | ... |
| Illinois | 21 | 39 | 2 | 23 | 2 | 3 | 78 |
| Indiana | 20 | 9 | ... | 8 | ... | 5 | 39 |
| Iowa | ... | 6 | ... | 10 | ... | 1 | 18 |
| Kansas | 1 | 2 | ... | 1 | ... | ... | 3 |
| Kentucky | 2 | 2 | ... | 1 | ... | ... | 4 |
| Louisiana | 1 | 1 | ... | ... | 1 | ... | 3 |
| Maine | ... | ... | ... | 1 | ... | ... | 1 |
| Maryland | 1 | 1 | ... | ... | ... | ... | 1 |
| Massachusetts | 4 | 11 | 3 | 2 | 2 | ... | 20 |
| Michigan | 34 | 48 | ... | 16 | 1 | 16 | 101 |
| Minnesota | 4 | 8 | ... | 24 | ... | 2 | 37 |
| Mississippi | ... | ... | ... | ... | ... | ... | ... |
| Missouri | 4 | 6 | ... | 7 | 1 | ... | 17 |
| Montana | ... | ... | ... | ... | ... | ... | ... |
| Nebraska | 1 | 3 | ... | 2 | ... | ... | 5 |
| Nevada | ... | ... | ... | ... | ... | ... | ... |
| New Hampshire | ... | 1 | ... | ... | ... | ... | 1 |
| New Jersey | 2 | 7 | ... | 1 | 4 | 1 | 16 |
| New Mexico | ... | ... | ... | ... | ... | ... | ... |
| New York | 15 | 31 | 2 | 6 | 12 | 7 | 75 |
| North Carolina | 2 | ... | ... | ... | ... | ... | 2 |
| North Dakota | ... | ... | ... | 1 | ... | ... | 1 |
| Ohio | 24 | 31 | 1 | 13 | 3 | 5 | 69 |
| Oklahoma | 3 | 3 | ... | 1 | 1 | ... | 6 |
| Oregon | ... | ... | ... | ... | ... | ... | ... |
| Pennsylvania | 6 | 26 | 1 | 4 | ... | 6 | 41 |
| Rhode Island | ... | 1 | ... | ... | ... | ... | 1 |
| South Carolina | 1 | ... | ... | ... | ... | ... | 1 |
| South Dakota | ... | ... | ... | 2 | ... | ... | 2 |
| Tennessee | ... | ... | ... | ... | ... | ... | ... |
| Texas | 2 | 2 | ... | 2 | ... | ... | 4 |
| Utah | ... | ... | ... | ... | ... | ... | ... |
| Vermont | ... | ... | ... | ... | ... | ... | ... |
| Virginia | 2 | 1 | ... | 1 | 1 | ... | 4 |
| Washington | ... | 5 | ... | 2 | 1 | ... | 8 |
| West Virginia | 1 | 1 | ... | ... | 1 | ... | 2 |
| Wisconsin | 6 | 11 | 2 | 14 | 1 | 7 | 38 |
| Wyoming | ... | ... | ... | ... | ... | ... | ... |
| Canada | 12 | 8 | ... | 3 | ... | ... | 19 |
| Total | 175 | 281 | 11 | 153 | 35 | 55 | 649 |

# (14) Vitality Record of the Industry

NUMBER OF MANUFACTURING COMPANIES IN THE BUSINESS, NEW ONES STARTED AND COMPANIES QUITTING EACH YEAR

*(Compiled by Chilton Automobile Directory for National Automobile Chamber of Commerce)*

| | PASSENGER CARS | | | COMMERCIAL CARS | | |
|---|---|---|---|---|---|---|
| | Total Manufacturers in business | New during Preceding Year | Dropped during Preceding Year | Total Manufacturers in business | New during Preceding Year | Dropped during Preceding Year |
| January, 1919 | 166 | 15 | 54 | 215 | 43 | 58 |
| January, 1918 | 209 | 34 | 55 | 228 | 54 | 58 |
| January, 1917 | 228 | 72 | 52 | 226 | 67 | 71 |
| January, 1916 | 214 | 89 | 62 | 233 | 73 | 49 |
| October, 1914 | 196 | 32 | 34 | 216 | 25 | 25 |
| January, 1914 | 197 | 43 | 82 | 239 | 63 | 104 |
| January, 1913 | 244 | 51 | 67 | 310 | 108 | 88 |
| January, 1912 | 263 | 37 | 89 | 275 | 140 | 72 |
| January, 1911 | 314 | 72 | 73 | 220 | 131 | 38 |
| January, 1910 | 301 | 91 | 72 | 122 | 47 | 27 |

# (15) The Automobile Trade by Classes and States

*(From the Chilton Automobile Trade List, March, 1919)*

| STATE | Charging Stations | Passenger Car Dealers | Garages | Repair Shops | Supply Dealers | Motor Truck Dealers | Ford Dealers | Number of Names |
|---|---|---|---|---|---|---|---|---|
| Alabama | 32 | 175 | 186 | 250 | 220 | 102 | 69 | 344 |
| Arizona | 15 | 122 | 123 | 147 | 155 | 70 | 30 | 213 |
| Arkansas | 42 | 250 | 228 | 290 | 293 | 125 | 67 | 417 |
| California | 113 | 1,332 | 1,622 | 2,175 | 2,000 | 696 | 264 | 3,214 |
| Colorado | 49 | 453 | 457 | 538 | 505 | 249 | 106 | 713 |
| Connecticut | 28 | 346 | 429 | 545 | 569 | 230 | 44 | 835 |
| Delaware | 8 | 74 | 75 | 95 | 91 | 38 | 18 | 128 |
| Dist of Columbia | 4 | 58 | 60 | 118 | 74 | 32 | 8 | 182 |
| Florida | 47 | 233 | 297 | 326 | 372 | 116 | 66 | 488 |
| Georgia | 47 | 408 | 391 | 446 | 452 | 209 | 120 | 772 |
| Idaho | 20 | 189 | 175 | 203 | 208 | 95 | 50 | 283 |
| Illinois | 465 | 1,906 | 2,128 | 2,650 | 2,713 | 900 | 533 | 3,615 |
| Indiana | 204 | 923 | 972 | 1,261 | 1,358 | 448 | 219 | 1,795 |
| Iowa | 148 | 1,676 | 1,592 | 1,897 | 1,896 | 776 | 419 | 2,541 |
| Kansas | 92 | 1,091 | 1,154 | 1,250 | 1,284 | 426 | 267 | 1,866 |
| Kentucky | 48 | 340 | 362 | 399 | 418 | 192 | 110 | 568 |
| Louisiana | 15 | 175 | 161 | 206 | 190 | 113 | 49 | 325 |
| Maine | 33 | 254 | 322 | 347 | 370 | 120 | 60 | 523 |
| Maryland | 21 | 240 | 310 | 377 | 347 | 163 | 62 | 539 |
| Massachusetts | 100 | 718 | 1,028 | 1,215 | 1,268 | 435 | 131 | 1,941 |
| Michigan | 164 | 1,043 | 1,264 | 1,428 | 1,516 | 524 | 301 | 2,068 |
| Minnesota | 109 | 1,020 | 1,063 | 1,210 | 1,211 | 464 | 281 | 1,655 |
| Mississippi | 25 | 168 | 174 | 186 | 199 | 86 | 71 | 282 |
| Missouri | 136 | 914 | 1,085 | 1,312 | 1,249 | 467 | 302 | 1,864 |
| Montana | 16 | 155 | 187 | 339 | 189 | 82 | 47 | 524 |
| Nebraska | 72 | 1,013 | 1,977 | 1,108 | 1,079 | 498 | 252 | 1,527 |
| Nevada | 6 | 49 | 55 | 62 | 57 | 26 | 17 | 93 |
| New Hampshire | 22 | 233 | 365 | 364 | 374 | 116 | 58 | 346 |
| New Jersey | 68 | 564 | 990 | 1,016 | 1,023 | 344 | 128 | 1,562 |
| New Mexico | 12 | 113 | 128 | 130 | 129 | 177 | 34 | 177 |
| New York | 211 | 1,907 | 2,785 | 3,080 | 3,094 | 1,029 | 427 | 4,730 |
| North Carolina | 53 | 338 | 401 | 406 | 395 | 179 | 114 | 560 |
| North Dakota | 59 | 520 | 495 | 543 | 610 | 203 | 182 | 826 |
| Ohio | 286 | 1,819 | 1,991 | 2,518 | 2,503 | 919 | 419 | 3,480 |
| Oklahoma | 75 | 658 | 723 | 713 | 738 | 275 | 191 | 1,190 |
| Oregon | 35 | 288 | 335 | 392 | 397 | 142 | 67 | 537 |
| Pennsylvania | 242 | 2,103 | 2,550 | 3,028 | 3,079 | 1,201 | 484 | 4,256 |
| Rhode Island | 11 | 87 | 147 | 209 | 197 | 57 | 8 | 317 |
| South Carolina | 18 | 240 | 227 | 271 | 257 | 112 | 62 | 395 |
| South Dakota | 38 | 604 | 510 | 611 | 644 | 261 | 152 | 860 |
| Tennessee | 38 | 268 | 234 | 331 | 286 | 145 | 87 | 454 |
| Texas | 189 | 1117 | 1,248 | 1,496 | 1,481 | 529 | 298 | 2,184 |
| Utah | 19 | 130 | 103 | 146 | 141 | 72 | 34 | 225 |
| Vermont | 15 | 146 | 182 | 181 | 208 | 85 | 44 | 272 |
| Virginia | 37 | 321 | 313 | 403 | 402 | 188 | 97 | 590 |
| Washington | 43 | 504 | 530 | 646 | 610 | 297 | 121 | 874 |
| West Virginia | 42 | 252 | 280 | 315 | 337 | 141 | 61 | 456 |
| Wisconsin | 246 | 1,049 | 1,120 | 1,263 | 1,320 | 542 | 283 | 1,828 |
| Wyoming | 8 | 80 | 101 | 112 | 113 | 56 | 25 | 149 |
| Canada | 181 | 1,306 | 1,263 | 1,411 | 1,506 | 598 | 430 | 2,021 |
| Total | 4,007 | 29,972 | 34,898 | 39,995 | 40,127 | 15,350 | 7,769 | 57,604 |

# War's Effect on the Automobile Industry Shown in Figures

*(Compiled January, 1919, by the National Automobile Chamber of Commerce)*

Because of its importance in what has been termed a "War of Motors," the automobile industry has suffered substantially in the making of its normal product. In some instances, passenger-car makers were almost 100 per cent. on war materials when the armistice was signed and have had some difficulty in getting back to a peace basis. Contracts were taken not alone for cars and trucks, but for guns, mine anchors, depth-bombs, helmets, field-kitchens, airplane motors, tanks, tractors, shells and similar material which could be made by the modern equipment of the motor car plants.

Passenger-car production was more than 800,000 cars short of 1917, being only 53 per cent. of that year, while truck production increased from 128,157 to 227,251, or 76 per cent.

The following revised figures from the War Industries Board and other sources show the war's effect on automobile making, the third largest manufacturing industry in this country:

| | 1917 | 1918 |
|---|---|---|
| Passenger cars produced in the United States | 1,740,792 | 926,388 |
| Commercial cars produced in the United States | 128,157 | 227,251 |
| Number of passenger car makers reporting | 109 | 98 |
| Number of motor truck makers reporting | 147 | 154 |
| Wholesale value of passenger cars produced | $1,053,505,781 | $711,465,984 |
| Wholesale value of commercial cars produced | 220,982,668 | 434,168,992 |
| Exports of passenger cars (exclusive of A. E. F.) | 65,792 | 37,172 |
| Exports of motor trucks (exclusive of A. E. F.) | 14,347 | 9,904 |
| Value of passenger cars exported | $51,982,966 | $37,797,615 |
| Value of motor trucks exported | 36,364,773 | 25,741,080 |
| Motor vehicles registered (of this number about 480,000 are trucks) | 4,941,276 | 5,945,442 |
| Value of war contracts assumed by automobile and truck manufacturers (more than) | | $1,100,000,000 |
| Passenger cars ordered by U. S. Government | | 38,460 |
| Motor trucks ordered by U. S. Government | | 204,760 |
| Passenger cars produced on war contracts | | 18,726 |
| Motor trucks produced on war contracts | | 62,987 |
| Passenger cars shipped overseas for A. E. F. | | 7,904 |
| Motor trucks shipped overseas for A. E. F. | | 54,343 |
| Army trucks requisitioned by Post Office Department for Postal Service | | 15,170 |
| Scheduled production of commercial vehicles during 1919 | | 328,000 |
| Federal taxes paid on sales of automobiles and trucks during twelve months ended September 30, 1918 | | $32,813,678 |

## (17)
## Summarized Report of United States Military Motor Vehicles as of December 1, 1918

*(Compiled by the National Automobile Chamber of Commerce from information supplied by Bureau of Purchase, Storage and Supply, War Department)*

| Class | Total Ordered | Total Produced | Total Cancelled | Shipped Over Seas | Balance Due |
|---|---|---|---|---|---|
| Passenger cars | 38,460 | 18,726 | 19,576 | 7,904 | 158 |
| Trucks—AA | 52,489 | 29,216 | 15,601 | 18,946 | 7,672 |
| " A | 30,005 | 12,585 | 12,920 | 5,214 | 4,500 |
| " B | 77,509 | 29,881 | 34,285 | 18,986 | 13,343 |
| " TT | 44,757 | 19,045 | 15,000 | 11,197 | 10,712 |
| Motorcycles | 67,883 | 31,606 | 32,000 | 18,253 | 4,277 |
| Bicycles | 68,902 | 28,353 | 37,500 | 24,875 | 3,049 |
| Total trucks | 204,760 | 90,727 | 77,806 | 54,343 | 36,227 |
| Grand Totals | 380,005 | 169,412 | 166,882 | 105,375 | 43,711 |

## (18)
## Production of Military and Civilian Trucks

*(Compiled by Automotive Products Section, War Industries Board)*

| | 1917 | 1918 |
|---|---|---|
| Produced for civilian use | 109,865 | 164,264 |
| Produced for military use | 18,292 | 62,986 |

## (19)
## Trailers Shipped Overseas to American Overseas Force

*(Reported by Motor Transport Corps)*

| | Floated in Aug. | Sept. | Oct. | Nov. | Total Dec. 1 |
|---|---|---|---|---|---|
| Trailers, all types | *3,094 | 790 | 864 | 788 | 5,536 |

* Reported in inventory, August 24, 1918.

## (20)
## Production of Automotive Equipment for Army, April 6, 1917, to November 11, 1918

*(As reported by Statistical Branch, General Staff, War Department)*

| | Produced | Floated | British and French Deliveries |
|---|---|---|---|
| Tractors | 3,249 | 1,547 | 348 |
| Tanks | 69 | 25 | 341 |
| Airplanes | 11,148 | 1,985 | |
| Airplane engines | 29,832 | *4,828 | |
| Trucks: | | | |
| (2-wheel drive) | 55,563 | 30,417 | |
| (4-wheel drive) | 16,934 | 9,420 | |
| Ambulances | 10,893 | 6,981 | |
| Motor cars | 17,666 | 6,989 | |
| Motorcycles | 28,310 | 16,188 | |
| **Truck and Passenger Car Production to January 1, 1919** | | | |
| Trucks | †98,000 | 54,343 | |
| Passenger cars | 18,808 | 7,904 | |

* Does not include 1,025 consigned to Allied Governments.
† Includes foreign purchases.

## (21)
## Motor Car Service in Washington

*(From statement filed with House Ways and Means Committee by National Automobile Chamber of Commerce, June, 1918)*

There was a 61% increase in cars in the District of Columbia during 1917. Total number of cars now registered with the Automobile Board is 32,295, of which about 10%, or 3,326, are trucks. That is the final figure up to May 1, 1918.

In the District of Columbia every driver of a car is obliged to take out an "Operator's Permit," but there is no record of the number of chauffeurs driving cars, and no way that it can be obtained, because owners as well as chauffeurs are obliged to register and secure drivers' permits.

With approximately 29,000 passenger cars in Washington, it is estimated that they carry an average of two persons at least four trips a day, to the relief of the street car lines, or a total of 232,000 fares. Presuming only half the cars are used each day, this would mean 116,000 fares that are not put on to the trolley lines. If the lines were burdened with these additional fares, it would take twice their time to cover the same journeys and be such an additional burden to the trolleys that a slowing up of their schedules would surely materialize.

As the number of passengers carried daily by the trolley lines in the District of Columbia, as given by their Vice-Presidents yesterday, is approximately 586,000 single rides, the motor vehicles, at a most conservative figure, are carrying about one-fifth of all the passengers that are transported in this city, and to add that number to the trolley lines would mean a breaking down of the system.

# (22) Principal Military Articles Supplied to United States Government by Automobile Factories

*(Exclusive of Automobiles and Trucks)*

| | |
|---|---|
| Packard | Liberty airplane engines |
| Pierce-Arrow | Hispano-Suiza airplane engines |
| Dodge | 155 MM gun recoil mechanism |
| Paige-Detroit | Depth bombs |
| Studebaker | 155 MM shells, mine anchors |
| Maxwell | Military tractors, tanks |
| Reo | Military tractors, tanks |
| Ford | Eagle boats, airplane engines |
| National | Bayonets, F. W. D. trucks |
| Goodyear | Balloons |
| Studebaker | Escort wagons |
| McFarlan | Ammunition chests |
| Anderson | Ambulance bodies |
| Brewster | Airplanes |
| Chandler | Tractors |
| Cunningham | Balloon winders |
| Jackson | 75 MM shells |
| King | Kitchen trailers and armored cars |
| Moon | Naval gun mounts |
| Willys | Airplane motors, gun carriages |

# (23) Motor Vehicle Production in the United States

*(Based on sworn statements of members of National Automobile Chamber of Commerce, United States Census reports and sworn statements to War Industries Board)*

| Year | Passenger and Commercial Combined Number | Wholesale Value |
|---|---|---|
| *1899 | 3,700 | $4,750,000 |
| 1903 | 11,000 | 12,650,000 |
| *1904 | 21,975 | 30,864,616 |
| 1905 | 25,000 | 40,000,000 |
| 1906 | 34,000 | 62,900,000 |
| 1907 | 44,000 | 93,400,000 |
| 1908 | 65,000 | 137,800,000 |
| *1909 | 127,731 | 165,148,529 |
| 1910 | 187,000 | 225,000,000 |
| 1911 | 210,000 | 262,500,000 |
| 1912 | 378,000 | 378,000,000 |
| 1913 | 485,000 | 425,000,000 |
| *1914 | 569,045 | 458,957,843 |
| 1915 | 892,618 | 691,778,950 |
| 1916 | 1,583,617 | 954,969,353 |
| †1917 | 1,868,947 | 1,274,488,449 |
| †1918 | 1,153,637 | 1,236,106,917 |

* From U. S. Census Reports.
† Production figures compiled by Automotive Products Section, War Industries Board, from sworn statements of manufacturers.

## (24) Passenger Automobile Production in the United States

*(Based on sworn statements of members of the National Automobile Chamber of Commerce, United States Census Reports and sworn statements to War Industries Board)*

| Year | Number | Wholesale Value |
|---|---|---|
| *1899 | 3,700 | $4,750,000 |
| *1904 | 21,281 | 23,634,367 |
| *1909 | 127,731 | 159,918,506 |
| 1910 | 181,000 | 213,000,000 |
| 1911 | 199,319 | 240,770,000 |
| 1912 | 356,000 | 335,000,000 |
| 1913 | 461,500 | 399,902,000 |
| *1914 | 543,679 | 413,859,379 |
| 1915 | 818,618 | 565,978,950 |
| 1916 | 1,493,617 | 797,469,353 |
| †1917 | 1,740,792 | 1,053,505,781 |
| †1918 | 926,388 | 801,937,925 |

* From U. S. Census reports.
† Production figures compiled by Automotive Products Section, War Industries Board.

## (25) Motor Truck Production in the United States

*(From reports by manufacturers to the National Automobile Chamber of Commerce, United States Census Reports and sworn statements to War Industries Board)*

| Year | Number | Wholesale Value |
|---|---|---|
| *1904 | 411 | $946,947 |
| *1909 | 3,255 | 5,230,023 |
| 1903 to 1910 | 10,374 | 20,485,500 |
| 1911 | 10,655 | 22,292,321 |
| 1912 | 22,000 | 43,000,000 |
| 1913 | 23,500 | 44,000,000 |
| *1914 | 25,375 | 45,098,464 |
| 1915 | 74,000 | 125,800,000 |
| 1916 | 90,000 | 157,500,000 |
| †1917 | 128,157 | 220,982,668 |
| †1918 | 227,250 | 434,168,992 |

* From U. S. Census reports.
† Production figures compiled by Automotive Products Section, War Industries Board, from sworn statements by manufacturers.

# (26) Capacity Analysis of Truck Production

*(As compiled by National Automobile Chamber of Commerce in 1912 and from records of Automotive Products Section, War Industries Board, for 1918, and forecast production in 1919)*

| Rated Capacity Tons | 1903 to 1910 No. | 1903 to 1910 Per Cent. | 1911 No. | 1911 Per Cent. | *1918 No. | *1918 Per Cent. | †1919 No. | †1919 Per Cent. |
|---|---|---|---|---|---|---|---|---|
| 1 and less | 6,197 | 63.1 | 6,292 | 59.0 | 100,417 | 47.9 | 153,515 | 54.3 |
| 1½ to 2½ | 1,851 | 18.8 | 1,891 | 17.8 | 79,070 | 37.6 | 88,613 | 31.4 |
| 3 to 4 | 1,353 | 13.8 | 1,759 | 16.5 | 25,128 | 11.9 | 21,676 | 7.7 |
| 5 | 369 | 3.7 | 541 | 5.1 | 5,079 | 2.4 | 15,907 | 5.7 |
| Over 5 | 58 | 0.6 | 172 | 1.6 | 406 | 0.2 | 2,683 | 0.9 |
| | 9,823 | 100.0 | 10,655 | 100.0 | 210,100 | 100.0 | 282,394 | 100.0 |

* Civilian trucks only.
† Estimated production civilian trucks only.

# (27) Price and Capacity Analysis of Truck Production Forecast for 1919

*(As compiled by Automotive Products Section, War Industries Board, in January, 1919, from manufacturers' reports)*

| Chassis List Price Dollars | CHASSIS CAPACITY TONS | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ½ | ¾ | 1 | 1½ | 2 | 2½ | 3 | 3½ | 4 | 5 | 5½ | 6 | 7½ | |
| 550 | ..... | ..... | 100,000 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 600 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 700 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 800 | 25 | 4,500 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 900 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1,000 | 9,000 | 600 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1,100 | ..... | 50 | 7,500 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1,200 | 100 | 2,850 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1,300 | ..... | 8,300 | 12,550 | 200 | ..... | 200 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1,400 | ..... | 500 | 770 | ..... | 3,500 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1,500 | ..... | 300 | ..... | 850 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1,600 | 50 | 7,043 | 7,851 | 600 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1,700 | 100 | 3,000 | 540 | 130 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1,800 | 25 | ..... | 400 | 3,200 | ..... | ..... | *120 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1,900 | ..... | ..... | 3,206 | 9,695 | 550 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2,000 | ..... | ..... | 1,641 | 4,790 | 250 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2,100 | ..... | 100 | 1,355 | 2,615 | 3,610 | ..... | ..... | ..... | ..... | *1,000 | ..... | ..... | ..... | ..... |
| 2,200 | ..... | ..... | 2,000 | 5,714 | 2,325 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2,300 | ..... | 2,800 | 445 | 659 | 4,530 | ..... | ..... | ..... | ..... | *60 | ..... | ..... | ..... | ..... |
| 2,400 | ..... | ..... | 120 | 1,115 | 1,660 | 2,500 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2,500 | ..... | ..... | 350 | 975 | 3,090 | 950 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2,600 | ..... | ..... | ..... | 595 | 7,124 | 35 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2,700 | ..... | ..... | ..... | 2,470 | 990 | 980 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2,800 | ..... | ..... | ..... | 1,280 | 6,645 | 740 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2,900 | ..... | ..... | ..... | ..... | 2,444 | 400 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 3,000 | ..... | ..... | ..... | 1,370 | 6,475 | 550 | 600 | 350 | ..... | ..... | ..... | ..... | ..... | ..... |
| 3,100 | ..... | ..... | ..... | ..... | 800 | 800 | 25 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 3,200 | ..... | ..... | ..... | ..... | 900 | 725 | ..... | 635 | ..... | ..... | ..... | ..... | ..... | ..... |
| 3,300 | ..... | ..... | ..... | 7,050 | 2,149 | 1,373 | ..... | 100 | ..... | ..... | ..... | ..... | ..... | ..... |
| 3,400 | ..... | ..... | ..... | ..... | 1,200 | ..... | ..... | 320 | ..... | ..... | ..... | ..... | ..... | ..... |
| 3,500 | ..... | ..... | ..... | ..... | 505 | 350 | 60 | 2,650 | 50 | 50 | ..... | ..... | ..... | ..... |
| 3,600 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1,555 | ..... | ..... | ..... | †60 | ..... | ..... |
| 3,700 | ..... | ..... | ..... | ..... | 1,200 | 360 | ..... | 1,965 | 50 | ..... | ..... | ..... | ..... | ..... |
| 3,800 | ..... | ..... | ..... | ..... | ..... | 40 | 500 | 2,300 | ..... | 25 | ..... | *100 | ..... | ..... |
| 3,900 | ..... | ..... | ..... | ..... | ..... | ..... | 69 | 2,925 | ..... | 75 | ..... | ..... | ..... | ..... |
| 4,000 | ..... | ..... | ..... | ..... | ..... | 60 | 625 | 2,313 | ..... | 80 | ..... | ..... | ..... | ..... |
| 4,100 | ..... | ..... | ..... | ..... | ..... | ..... | 3,806 | 1,239 | ..... | ..... | ..... | ..... | ..... | ..... |
| 4,200 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2,575 | ..... | 250 | ..... | ..... | ..... | ..... |
| 4,300 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 675 | 189 | ..... | ..... | ..... | ..... | ..... |
| 4,400 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 400 | ..... | ..... | ..... | ..... | ..... |
| 4,500 | ..... | ..... | ..... | ..... | ..... | ..... | 350 | ..... | ..... | 975 | ..... | ..... | ..... | ..... |
| 4,600 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1,005 | 180 | 450 | ..... | ..... | ..... | ..... |
| 4,700 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 250 | 550 | ..... | ..... | ..... | ..... |
| 4,800 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 30 | 6,783 | ..... | 10 | ..... | ..... |
| 4,900 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 100 | ..... | 386 | ..... | ..... | ..... | ..... |
| 5,000 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3,519 | ..... | 120 | ..... | ..... |
| 5,100 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1,219 | ..... | ..... | ..... | ..... |
| 5,200 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 5 | ..... | 50 | ..... | ..... |
| 5,300 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 10 | 1,000 | 125 | ..... | ..... |
| 5,400 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 429 | ..... | ..... |
| 5,500 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1,500 | ..... | ..... | 749 | ..... |
| 5,600 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 75 | 120 | ..... |
| 5,700 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 10 | ..... |
| 5,800 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 5,900 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 6,000 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 50 | ..... | 100 | 75 | ..... |
| 6,100 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 5 | ..... | ..... | ..... | ..... | ..... | ..... |
| 6,200 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 6,300 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 6,400 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 6,500 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 6,600 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 6,700 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 5 | ..... | ..... | ..... | ..... |
| TOTALS.... | 9,300 | 30,043 | 138,738 | 43,308 | 49,947 | 10,063 | 6,155 | 19,212 | 1,149 | 16,992 | 1,000 | 1,069 | 954 | 327,930 |

* Tractor. † Tractor Trailer.

# (28) Unfairness of Plans to Increase Taxes on Motor Vehicles

## Almost $50,000,000 Was Paid by Owners in Registration Fees to the States in 1918

*(Issued by National Automobile Chamber of Commerce, March,* 1919)

1. It is unfair and indefensible to tax motor vehicles heavily to pay for road construction and maintenance when no such tax is imposed on other vehicles using the roads.

2. It is believed to be unconstitutional in many States to tax motor vehicles as personal property and also under the guise of registration fees. It has been so held in Ohio and Mississippi.

3. It is unjust and indefensible to tax motor vehicles for the creation of a fund to be spent in road work and to expend that money without providing highways adequate to the traffic requirements of motor cars and trucks.

4. Of approximately $50,000,000 paid annually in motor vehicle fees, about $18,000,000 goes into the general tax fund in a number of States and only a small part of this fund is spent in road work.

5. Under the War Revenue Act. the buyers of new cars pay 5 per cent. tax and buyers of new trucks 3 per cent. Every car or truck owner, under the same Act, pays 5 per cent. tax on all parts, tires and accessories. During the year ended September 30, 1918, the Government received more than $32,000,000 from taxes imposed on the sale of motor vehicles, which are no longer luxuries but necessities in our American life.

6. Most of the road funds raised by motor vehicle fees are spent in repair and maintenance of roads built for horse traffic that go to pieces rapidly under motor car and heavy truck traffic and cost about $1,000 a mile per year to maintain. Thus the money paid by motor vehicle owners is not spent for their benefit and is largely wasted.

7. Fundamentally the highways are for the benefit of the public as a whole. They do not and are not intended to benefit the user alone. A number of States are planning to pay the interest and sinking fund on big highway bond issues solely out of motor vehicle fees. There is a grave question of the fairness of this policy which is a backward step in the direction of the antiquated toll road system.

8. If States intend to change their policy of assessing the cost of highway work on the public as a whole and assess it on the users of the road, by all means every user should pay his share in proportion to the amount of use he makes of the highways. It is indefensible to charge a special road tax against the owners of a motor car or motor truck and allow a horse-drawn vehicle to use the road free of charge.

9. Motor vehicle owners have little or no voice in determining the kinds of roads built or how the special taxes they pay shall be expended.

10. If the roads are to be paid for by the user, then the user should have the right to control the expenditure of the fund, determine the types of road to be built and control the traffic, just as the railroads, which pay for the construction and maintenance of the railroad lines, control absolutely their own expenditures.

11. If the highways are a public institution, like public schools and fire departments, they should be supported by general taxation and not by a single class of users.

12. The only ground on which motor vehicle owners can logically agree to increased special taxation is that the States have reached the limit of taxation under their constitutions and cannot raise the money needed for highway construction and maintenance. The answer to this is that the people will find a way to pay for any public improvement they want. If property assessments cannot be raised, then the constitutional limits of taxation can be raised by amendment. This will take time and may delay the highway improvement. There are many millions of dollars now available in Federal funds that the States have not taken advantage of as yet. The States also have available about all the money they will be able to spend in actual work for the next year and in many States for several years.

13. If we allow the precedent to be established now that highways should be paid for out of taxes on motor vehicles it will be practically impossible ever to get this burden removed. Meantime the increased taxes will be an added impediment to the use of cars and trucks.

14. Added taxes increase the difficulties of a great industry and will not be offset by theoretical calculations indicating savings in operating costs due to road improvement. The tax is a tangible, concrete immediate expense while possible savings in time, wear and tear and gasoline and oil consumption are indefinite and cannot be realized until after the roads have been constructed or improved.

15. The registration fee in some States is in addition to the personal property tax. If this was at the rate of 1 mill on an assessed value of $3,500 it would amount to $3.50. Trucks operated on schedule or regular routes have to pay a franchise tax based on the annual ton-mileage. This rate is believed to be a tenth of a cent per ton-mile and on a yearly basis of 75,000 ton-miles for a 5-ton truck, averaging 50 miles a day, would amount to $55. The revenue tax on a $3,500 truck is about $85.

16. Items such as these are not insignificant and are bound to have a deterrent effect on prospective purchasers. Truck sales are made only by convincing the purchaser of their superior economy, so that every item added to expense of operation tends to nullify their efforts. Yet the use of motor trucks in short haul traffic and for farm products, etc., is for the public good and should be encouraged.

17. If taxes are permitted to be increased from year to year they will reach a point where they will offset any expected benefits to be derived from improvement of the roads.

18. The industry must take action to oppose the increase of taxes to a point where they exceed the balance between the benefit the customer will gain by use of a truck and that which he will expect to gain by improvement of the highways if he buys a truck.

19. If we put an unjust tax upon motor vehicles to pay for road construction and maintenance, we are hampering the development of what will become our most important mode of transportation. Highway transportation should be encouraged and not taxed to the point where it becomes unprofitable. Passenger automobiles using the highways are essential transportation. It is not necessarily a pleasure trip for the occupants of the vehicle are a benefit to the communities through which they pass. The hotel man benefits, as do the other merchants.

20. The highways are for the benefit of the public. They are not entirely for the user. The operator is using them for your benefit. He is transporting passengers and commerce to your town. He is making your town wealthier and helping to increase your population. It is the duty of every community to pay something in the construction of its own highways from which it is the chief benefactor. If highways are poorly constructed they will not carry the load which is designed to serve you.

21. Operators of highway transportation are already complaining. They claim that if taxation is increased they cannot afford to use more trucks. If highway transportation is to succeed it must be profitable to the operator or he cannot give you the service you require.

22. It is unwise to advocate the elimination of trucks above five or six tons capacity from use of the roads because economic highway transportation lies in maximum tonnage. The Massachusetts law permitting total weight of truck and load of 28,000 is considered fair. New Jersey permits 30,000 pounds. Main trunk lines should be built to carry the load. In the long years of development of the railways, the load came first and the right of way was built to carry it. As bigger cars, heavier locomotives, and longer trains came, heavier rails were laid, heavier bridges built, the ties were placed closer together and rock ballast was resorted to. Main lines are built to carry heavier locomotives than many branch roads.

23. It would be a mistake to restrict the length of trucks to twenty-five feet. We advocate thirty feet over-all and an over-all width of not more than 96 inches. The difference in length does not make the truck more unwieldly but it does provide for greater loading space for light and long materials and for the use of semi-trailers.

24. Highway transportation can be successful only when economical. If unreasonable restrictions are imposed on this form of transportation and it is forced to pay fees to City, State and Nation for different purposes, such as licenses, taxes for using city streets and highways, this form of transportation is made too expensive and therefore unprofitable. Our future welfare lies in extending this form of transportation. It reaches points not touched by the railroads. It will go to the steamship dock or the railway terminal and bring your goods to your door or it will go to distant points and bring them more rapidly and in a better condition than any other form of transportation. It will bring them twice as fast as the railway express. It will accomplish its purpose in hours whereas the railway freight requires days. The cost of haulage is lower than railway express and in some cases it has been a little higher than freight. If overburdened with all kinds of taxation, restrictions and fees, its growth will be checked and it will be prohibitive as an economic hauling factor.

25. On December 1, 1918, there were 5,945,442 motor vehicles registered and in use in this country, of which about 500,000 were motor trucks.

26. According to the latest figures available the automobile industry is capitalized at over one and one-quarter billion dollars. This exceeds by a quarter of a billion the capitalization of all the national banks; is greater than the combined capital stock of the New York Central, Pennsylvania, Chicago and Northwestern and Chicago, Milwaukee and St. Paul Railroads; is more than twice as great as the combined outstanding capital stock of the Standard Oil group of thirty-five companies.

27. More than 800,000 people are employed by the industry, which is half as many as are employed by all of the railroads of the United States. This number of people and their dependents would populate the cities of Chicago, Philadelphia, St. Louis and Boston combined, or any one of several of our principal States, such as Iowa, Kansas, New Jersey, California and Wisconsin. It would populate Arizona, Delaware, Idaho, Maine, Nebraska, New Hampshire and New Mexico combined. The wages paid these employees is approximately $750,000,000 in a normal year, which is about the amount of all the gold in circulation in the United States and more than two and one-quarter times the gross revenue of the Post-office.

28. The total wholesale value of motor vehicles manufactured in 1917 was $1,250,000,000 or twice the total gross income of twelve of the largest insurance companies.

29. There are 30,000 dealers and 27,000 garages in the United States. The automobile business is represented in practically every town and village in the country.

## (29) Statistics of Automobile Dealers' Business

*(Compiled by National Automobile Chamber of Commerce, December, 1915, from reports by 4,000 dealers in the United States)*

| | | Average per Dealer |
|---|---|---|
| Total capital invested | $76,721,623 | $19,000 |
| Employes, male, 27,719; female 2,421 | 30,140 | 7½ |
| Salaries and wages paid during year ended June 30, 1915 | $22,906,024 | $5,750 |
| Rent paid per year | $4,016,748 | $1,004 |
| Cost of new buildings and improvements during year ended June 30, 1915 | $5,176,445 | $1,294 |
| Paid for materials and supplies for resale during year ended June 30, 1915 | $56,391,687 | $14,000 |
| Taxes, insurance, light, power, etc., during year | $50,257,727 | $12,500 |

# (30) Statistics of Canadian Automobile Industry for the Year 1917

*(From preliminary report by Dominion Bureau of Statistics, Department of Trade and Commerce, December 19, 1918)*

| | Automobile | Accessories | Repair Shops | Total |
|---|---|---|---|---|
| Number of establishments | 11 | 24 | 497 | 532 |
| Capital invested | $28,192,858 | $3,155,893 | $4,431,926 | $35,780,677 |
| Value of materials used | $35,585,820 | $3,788,308 | $1,961,773 | $41,335,901 |
| Total vehicles produced | 89,676 | ..... | ..... | ..... |
| Value of products | $54,466,273 | $6,495,868 | $5,091,066 | $66,053,207 |
| Salaried employees (male) | 4,852 | 1,405 | 1,508 | 7,765 |
| Salaried employees (female) | 164 | 122 | 34 | 320 |
| Wages paid in 1917 | $4,862,779 | $1,198,596 | $1,200,958 | $7,262,333 |

### Output of Vehicles Classified by Types

| | | | |
|---|---|---|---|
| Touring cars | 80,544 | Club roadsters | 561 |
| Runabouts | 5,502 | Trucks | 117 |
| Closed cars | 1,231 | Unclassified | 1,721 |

### Exports of Motor Vehicles and Parts

(During 12 months ended October)

| | 1917 No. | 1917 Value | 1918 No. | 1918 Value |
|---|---|---|---|---|
| Automobiles | 9,349 | $4,504,772 | 8,044 | $3,692,524 |
| Parts | ..... | 1,523,678 | ..... | 1,202,055 |
| Total | ..... | $6,028,450 | ..... | $4,894,579 |

### Imports of Motor Vehicles and Parts

(During 6 months ended September)

| | 1917 No. | 1917 Value | 1918 No. | 1918 Value |
|---|---|---|---|---|
| Automobiles | 11,171 | $7,870,377 | 5,689 | $5,018,941 |
| Parts | ..... | 3,698,140 | ..... | 3,511,077 |
| Total | ..... | $11,568,517 | ..... | $8,530,018 |

# Related Industries

## (31) Output of Petroleum Refineries in the United States

*(Compiled by the United States Bureau of Mines)*

| | 1916 | 1917 | Eleven Months 1918 |
|---|---|---|---|
| Crude run (bbl. of 42 gal.) | 246,992,015 | 315,131,681 | 299,066,473 |
| Other oils (bbl. of 42 gal.) | ..... | July-Dec. 14,897,670 | 47,090,314 |
| Gasoline (gal.) | 2,058,880,596 | 2,850,546,423 | 3,278,568,498 |
| Kerosene (gal.) | 1,455,495,732 | 1,726,767,976 | 1,663,617,424 |
| Gas and fuel (gal.) | 4,663,895,284 | 6,513,324,280 | 6,733,523,570 |
| Lubricating (gal.) | 624,541,195 | 753,776,840 | 776,477,925 |
| Wax (pounds) | 386,180,898 | 481,200,081 | 461,297,265 |
| Asphaltum (tons) | 716,490 | 739,425 | 570,370 |
| Miscellaneous (gal.) | 239,244,468 | 702,167,243 | 1,202,436,653 |
| Losses (bbl.) | 10,008,517 | 13,073,829 | 13,204,064 |

**Stocks on Hand at Refineries**

| | Dec. 31, 1916 | June 30, 1917 |
|---|---|---|
| Crude oil (bbl.) | 20,370,414 | 24,183,830 |
| Gasoline (gal.) | 326,884,127 | 364,976,344 |
| Kerosene (gal.) | 476,913,989 | 438,967,247 |
| Gas and fuel (gal.) | 760,560,199 | 718,427,188 |

**Gasoline Situation in 1918**

| Production | |
|---|---|
| Crude production | 388,000 000 |
| Crude to refineries (Crude in 42's) | 318,160,000 |
| Average yield of gasoline | 21% |
| Gasoline produced from crude | 56,000 000 |
| Casinghead produced (in 50's) | 5,000 000 |
| Total production of gasoline, 1918, all sources | 61,000 000 |
| Refinery stocks, January 1, 1918 | 6,000,000 |
| Total available gasoline, 1918 (in 50's) | 67,000,000 |

| Requirements | |
|---|---|
| Domestic: | |
| No. of automobiles, 1918 (1917, 4,500,000 + 0%) | 4,500,000 |
| Average consumption (per car) | 10 bbls. |
| Total required for motor vehicles | 45,000,000 |
| Industrial, power, launches, lighting, manufacturing and tractors | 6,000,000 |
| Exports | 12,000,000 |
| Total gasoline required, 1918 | 63,000,000 |
| Total available gasoline, 1918 | 67,000,000 |
| Net stocks, January 1, 1919 | 4,000,000 |

## (32) Crude Rubber Consumption in the United States

(In pounds—dry weight)

| Used in | 1917 | 1st 9 mos., 1918 |
|---|---|---|
| Casings under 6 inches | 162,643,482 | 106,256,616 |
| Tubes under 6 inches | 35,704,446 | 24,577,986 |
| Solid tires | 25,055,673 | 38,634,236 |
| Other tires and tire sundries | 9,983,195 | 11,105,397 |
| Mechanical goods | 21,857,385 | 17,138,600 |
| Boots and shoes | 26,823,689 | 24,316,146 |
| Other products | 24,045,782 | 24,481,546 |
| Total | 306,113,652 | 246,510,527 |

## (33) Quantities of Metals and Rubber Used in Automobiles

*(Information supplied by National Automobile Chamber of Commerce to War Industries Board in 1918)*

| The average automobile requires: | Pounds |
|---|---|
| Carbon steel in bars and billets | 200 |
| Carbon steel springs | 113 |
| Carbon steel sheets | 500 |
| Alloy steel | 100 |
| Pig iron for grey iron and malleable castings | 630 |
| Tin | 7.5 |
| Crude rubber | 20 |
| Copper | 36 |
| Lead | 5 |
| Antimony | 1 |
| Zinc | 7 |
| Manganese | 10.5 |

All crude rubber, antimony, tin and 75 per cent. of the manganese are imported.

Approximately 10 per cent. of the carbon and alloy bars and billets or 30 pounds per car would be remelted as scrap.

| | Pounds |
|---|---|
| Iron and steel required for the average automobile | 1,543 |
| | Tons |
| Iron and steel used in passenger automobiles in 1917 | 1,339,520 |
| Iron and steel used in passenger automobiles in 1918 | 714,708 |

## (34) Rubber Tire Production in the United States

*(Compiled by War Service Committee, Rubber Industry of the United States of America)*

| Total Output | 1916 | 1917 | *9 mos.,1918 |
|---|---|---|---|
| Casings under 6 inches | 18,564,957 | 25,840,656 | 16,196,196 |
| Tubes under 6 inches | 16,785,398 | 23,256,752 | 16,037,155 |

* Production limited by agreement with the War Industries Board.

# PASSENGER CARS

## (35) Occupational Analysis of Purchasers of Passenger Cars

*(Compiled by the Continental Guaranty Corp., New York, from information relating to purchasers under the guaranty plan)*

### Individuals or Firms Engaged in Businesses Rated by R. G. Dun & Co.

To the best of our knowledge each purchaser in this group is either the owner of, or financially interested in, the business designated. Practically every car is used as an important aid to the owner's business.

| Business | Number of Purchasers | Average Value of Car |
|---|---|---|
| General hardware | 46 | $753.91 |
| Foundries and heavy metal lines | 71 | 830.01 |
| Plumbing and heating supplies | 55 | 710.80 |
| Wheelwrights and blacksmiths | 84 | 812.63 |
| Clothing | 103 | 770.11 |
| Dry goods | 37 | 888.14 |
| Furniture and undertaking | 50 | 1,036.40 |
| Lumber | 106 | 884.43 |
| Fuel and ice | 35 | 936.97 |
| Boots, shoes and tanneries | 23 | 768.61 |
| Saddleries and trunks | 9 | 829.55 |
| Groceries | 401 | 746.69 |
| Jewelers | 42 | 953.24 |
| Brewers and distillers | 8 | 648.62 |
| Drugs | 37 | 974.95 |
| Flour mills, hay, grain and feed | 20 | 693.85 |
| Tobacco | 22 | 788.59 |
| Printers and stationers | 78 | 821.21 |
| Nurserymen, florists and seedsmen | 25 | 777.32 |
| Hotels and liquor dealers | 238 | 982.84 |
| China and glassware | 3 | 1,410.67 |
| Musical instruments | 18 | 821.22 |
| Fancy goods | 3 | 677.00 |
| Painters and paperhangers | 55 | 1,038.65 |
| General and department stores | 34 | 766.91 |
| Building and construction contractors | 345 | 823.86 |
| Autos and accessories | 117 | 954.81 |
| Bakers and confectioners | 122 | 783.76 |
| Produce | 60 | 730.43 |
| Livery, storage and transfer | 74 | 942.90 |
| Miscellaneous merchants and manufacturers | 812 | 843.76 |
| Total | 3,133 | $842.82 |

### Professional Men and Women

To certain classes of owners in this group a car is an absolute necessity, particularly architects, surveyors, clergymen and doctors.

| Profession | Number of Purchasers | Average Value of Car |
|---|---|---|
| Architects, designers and surveyors | 62 | $950.45 |
| Authors, actors and artists | 52 | 905.90 |
| Chemists | 52 | 882.54 |
| Clergymen | 51 | 804.05 |
| Doctors and dentists | 471 | 1,000.11 |
| Teachers | 78 | 768.82 |
| Engineers—electrical, civil, etc | 158 | 874.09 |
| Lawyers | 109 | 971.05 |
| Miscellaneous professions | 138 | 862.32 |
| Total | 1,171 | $994.98 |

### Farmers, Insurance, Mining and Real Estate

Individuals or firms engaged in businesses not classified in R. G. Dun & Co.'s Rating Book. Every purchaser in this group obviously needs a car in the conduct of his or their business.

| Business | Number of Purchasers | Average Value of Car |
|---|---|---|
| Farmers—cattle raisers | 87 | $935.72 |
| " —cotton growers | 10 | 904.00 |
| " —dairymen | 79 | 734.96 |
| " —fruit growers | 10 | 769.40 |
| " —general | 652 | 842.00 |
| " —grain | 29 | 645.27 |
| " —truck | 13 | 824.54 |
| Insurance | 111 | 886.63 |
| Mining | 68 | 904.09 |
| Real estate | 180 | 949.68 |
| Total | 1,239 | $859.93 |

## (36) Farmers' Use of Passenger Cars

*(From Standard Farm Paper Year Book)*

24⅖ Per Cent Bought their Car For Both Business And Pleasure
Bought 2⅖ Per Cent for Pleasure
73⅕ Per Cent of the Farmers Investigated Bought Their Car As a Necessary Part of the Equipment of their Farm
75
25
50

To ascertain the underlying motive behind the purchase of an automobile by farmers, an investigation was conducted among farmers owning automobiles in Livingston County, Illinois. The facts brought out in this investigation, shown graphically above, were as follows:

73 1/5 per cent. said they bought their automobile as necessary part of their farm equipment.

24 2/5 per cent. said that they bought it for business and pleasure.

2 2/5 per cent. said that they bought it for pleasure alone.

### (37) Pennsylvania Farmers' Use of Cars as of January 1, 1918

*(Excerpts from a leaflet issued by "Pennsylvania Farmer")*

A report by the Bureau of Statistics of the Pennsylvania Department of Agriculture shows that 27 per cent. of the farmers own automobiles. One year ago there were 30,700 automobiles owned by the farmers and the year before about 20,000. Now of 306,001 automobiles in Pennsylvania, farmers own 58,766, or almost 20 per cent., and of 19,152 motor trucks in Pennsylvania, farmers own 4,435, or over 23 per cent., as compared with 2,100 a year ago.

In a number of counties thirty-five per cent. of the farmers own automobiles, but Philadelphia county leads with 55 per cent. and Delaware is second with 45 per cent. Lancaster, Washington and Somerset each show 40 per cent. Lancaster county is high with 4,334 cars owned by farmers and Berks is second with 2,086. Other leaders are: York, 2,030; Chester, 1,983; Washington, 1,893; Bucks, 1,806; and Allegheny, 1,745.

### Automobiles Owned by Farmers in Pennsylvania, January 1, 1918, by Counties

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Adams | 750 | Clinton | 380 | Lackawanna | 372 | Pike | 192 |
| Allegheny | 1,745 | Columbia | 833 | Lancaster | 4,334 | Potter | 602 |
| Armstrong | 658 | Crawford | 1,423 | Lawrence | 778 | Schuylkill | 961 |
| Beaver | 556 | Cumberland | 913 | Lebanon | 808 | Snyder | 369 |
| Bedford | 907 | Dauphin | 805 | Lehigh | 1,153 | Somerset | 1,573 |
| Berks | 2,086 | Delaware | 643 | Luzerne | 997 | Sullivan | 217 |
| Blair | 410 | Elk | 300 | Lycoming | 553 | Susquehanna | 1,436 |
| Bradford | 1,456 | Erie | 1,378 | McKean | 359 | Tioga | 1,109 |
| Bucks | 1,806 | Fayette | 764 | Mercer | 1,348 | Union | 364 |
| Butler | 1,421 | Forest | 55 | Mifflin | 281 | Venango | 503 |
| Cambria | 497 | Franklin | 1,488 | Monroe | 419 | Warren | 338 |
| Cameron | 33 | Fulton | 313 | Montgomery | 1,188 | Washington | 1,893 |
| Carbon | 299 | Greene | 886 | Montour | 238 | Wayne | 827 |
| Centre | 913 | Huntingdon | 457 | Northampton | 1,141 | Westmoreland | 1,378 |
| Chester | 1,983 | Indiana | 713 | Northumberland | 633 | Wyoming | 439 |
| Clarion | 925 | Jefferson | 506 | Perry | 361 | York | 2,030 |
| Clearfield | 546 | Juniata | 271 | Philadelphia | 453 | | |
| | | | | | | Total | 58,766 |

# MOTOR TRUCKS

## The Motor Truck as an Essential

*(From presentation before War Industries Board by National Motor Truck Committee, June, 1918)*

The motor truck is solely a utility. There can be no doubt as to the value of every possible motor truck in service.

The motor truck discharges no function of entertainment. It furnishes transportation at a time when transportation is a vital material need.

It is conceded that during the war we must have production. The motor truck is inseparably related to distribution of this production.

Congested traffic constitutes a war problem.

Production cannot be brought up to its ultimate unless sources of communication are regular and rapid.

Insufficient transportation did more to retard the rapid and efficient entrance of the United States into the war than could a legion of Huns.

This was proved last winter when, to get transportation for coal to send ships to Europe with urgently needed supplies, the Fuel Administrator found it necessary to stop all production for five days.

Shortages of coal and steel result largely from transportation deficiencies.

There are three main forms of transportation: the railway, the steamboat, and the motor truck.

The enormous growth of business and the extraordinary volume of war haulage virtually overwhelmed both railroad and steamboat facilities. Both have more freight than they can handle. Only transportation over the highways offers any considerable possibility of immediate relief.

### (38) All Trucks Help in Winning the War

Almost all trucks serve their war purpose. This applies equally to trucks that are going to the European battlefronts, and to those that will be used in this country.

Many purveyors in war supplies have based their schedules of rapid delivery on the help of the motor truck.

Trucks have rendered a four-way service in this work. They haul away the dirt excavated for the foundations of a new building. Then bring in material for constructing the building. Next they deliver raw material for making the product. Finally the truck completes its record of performance by carrying the finished articles to the point of delivery. Such trucks are just as valuable in handling war supplies as those used in France.

### (39) Recognition from the Government

The United States Government has recognized the importance of the truck, both for military and so-called domestic uses.

War Department Order No. 38 established the Motor Transport Service for war trucks. The Highways Transport Committee, serving as part of the National Council of Defense, was organized to divert all possible traffic to the highways.

Government trucks running from cities in the Middle West to the seacoast are constantly establishing the practicability of overland delivery by power vehicles.

The Department of Agriculture has encouraged the application of trucks to the moving of food.

The Fourth Assistant Postmaster-General is hauling farm products into the big cities distances of more than 100 miles by motor trucks. His program, presented in a bill now before Congress, calls for the eventual establishment of 5,000 miles of new roads, which will be built from the profits of motor truck haulage of food to market.

Every truck put into service brings the manufacturer nearer his market, brings the farmer nearer the consumer, brings the finished war order nearer the shipping point, facilitates rapid filling of orders, supplies the equivalent of man-power lost by withdrawal of soldiers, makes less serious the shortage of horses, and restores gaps in organizations occasioned by deficiencies of labor, material, and transportation.

### (40) Importance to the Farmer

The farmer, dependent as much on rapid access to his market as on the productivity of his farm, finds the motor truck coming to his aid at a time when he cannot hire farm hands. A truck on a farm will replace from two to four men. It will carry twice the load in half the time. It will make available for other production five acres of land whose yearly crop is now required to feed a horse.

It has been estimated that in view of the greatly increased production of foodstuffs, wheat, rye, barley, oats, corn, beef, pork, mutton, eggs, milk, poultry, and fruit, that 2,000,000 trucks could profitably be used between farms and markets. Only 450,000 motor trucks are now available for all lines of business. This is only 22½ per cent. of what could be applied to farms alone.

The use of the truck in so-called rural motor express lines offers the best possible medium through which farmers, truck growers and dairymen may get to their markets. The truck is also being used for the delivery of live stock to stock yards.

Some makers sell 60 per cent. of their trucks to farmers.

Many trucks are carrying raw materials to factories. The absence of the service rendered by these trucks would often mean that thousands of men would go idle for lack of the raw material on which they work.

### (41) Express and Heavy Haulage Service

Some railroads have had to decree that goods consigned in less than carload lots cannot be delivered in any specified time. This ruling results from a shortage of rolling stock and equipment, and a general congestion in freight yards, terminal points and warehouses.

The facilities of express companies for general work have been very much limited through the necessity of using baggage and express cars in troop movement. Therefore the purveyor in food supplies has found himself hard pressed to get transportation. He is placing increasing dependence on the motor truck.

The development of heavy haulage companies operating between big cities, and sometimes covering as much as 150 miles in their regular routes, is a significant development. The use of trucks in this kind of work is increasing by leaps and bounds, for the truck is superior for short-haul work and in making stops en route. It can deliver supplies to the door of the consignee. It saves time and labor.

In many points it has been found necessary to place embargoes on movement by rail of certain kinds of freight within certain zones. The result has been to divert this haulage to local transportation and transfer companies, the medium in almost every case being a truck.

All that has been gained by the application of these trucks will be lost if there is a shortage of trucks or of parts to keep present trucks in repair.

## (42) Trucks Used in Related War Activities

Our inquiries, based on a questionnaire sent to various manufacturers, show that about 80 per cent. of the output of motor trucks is being used in war work or related war activities.

This leaves a comparatively small percentage of trucks applied to unrelated war activities. Even this small percentage involves a service of practical utility and convenience.

We have analyzed the sales of a foremost motor truck manufacturer for the period of twelve months' business in the year 1917. The appended arrangement by percentages will show that virtually every activity therein represented has some relation to the war:

| | Per Cent |
|---|---|
| Transfer and Transportation | 13.2 |
| Grocers | 8.8 |
| Contractors | 7.6 |
| Oil and gas producers | 14.3 |
| Coal dealers | 4.7 |
| Building supplies | 5.0 |
| Tool and machinery manufacturers | 2.0 |
| Lumber | 3.5 |
| Meat packers | 2.7 |
| Chemical manufacturers | 1.3 |
| Textile manufacturers | 1.7 |
| Public utility | 2.3 |
| Road building | 0.54 |
| Iron and steel | 2.0 |
| Foundry and forging | 1.5 |
| Storage and warehouse | 1.5 |
| Milk | 1.2 |
| Farmers | 0.78 |
| Ice | 0.93 |
| Ammunitions | 0.39 |
| Mining | 0.24 |
| Stone | 0.1 |
| Brick | 0.39 |
| Gas producers | 0.83 |
| Rubber | 0.73 |
| Hardware | 0.98 |
| Paper | 0.98 |
| Paints | 0.88 |
| Bakery | 0.88 |
| Flour | 1.2 |
| Sugar | 0.83 |

The potential haulage capacity of the 450,000 trucks now in use can readily be understood. Allowing an average of ten tons a day per truck, an estimate which is small since many trucks in short-haul work will move as much as 100 tons per day, we have a total of four and one-half millions of tons of freight moved per day. Surely there can be no arguments in favor of restricting such a valuable service.

# (43) Motor Trucks Operated in Leading Industries

*(Compiled from the "Power Wagon's" records, as of January 1, 1918)*

| | FLEETS* | | | TOTALS‡ | | |
|---|---|---|---|---|---|---|
| Industry | No. of Owners | Machines | Value | No. of Owners | Machines | Value |
| Bakers and confectioners | 140 | 1,822 | $3,750,000 | 846 | 2,981 | $6,000,000 |
| Barrel and box makers | 7 | 33 | 100,000 | 171 | 245 | 750,000 |
| Bottlers of soft drinks | 187 | 992 | 2,500,000 | 627 | 1,498 | 3,750,000 |
| Brewers and malsters | 355 | 3,947 | 15,000,000 | 983 | 4,990 | 19,000,000 |
| Building material dealers | 43 | 387 | 1,560,000 | 689 | 1,218 | 4,875,000 |
| Chemists and druggists, wholesale | 16 | 113 | 400,000 | 268 | 518 | 1,600,000 |
| Coal dealers | 162 | 1,723 | 7,225,000 | 1,649 | 3,837 | 15,790,000 |
| Contractors | 105 | 875 | 3,100,000 | 1,370 | 2,738 | 9,580,000 |
| Creameries and dairies | 65 | 489 | 1,500,000 | 790 | 1,578 | 4,750,000 |
| Department and dry goods stores | 385 | 3,980 | 10,500,000 | 839 | 5,097 | 13,750,000 |
| Electric light and power companies | 111 | 2,252 | 2,600,000 | 424 | 2,558 | 7,700,000 |
| Fire departments | 265 | 3,702 | 18,880,000 | 1,813 | 6,211 | 31,350,000 |
| Florists, nurserymen and seedsmen | 10 | 69 | 200,000 | 412 | 605 | 1,200,000 |
| Furniture dealers | 129 | 784 | 1,750,000 | 1,361 | 2,528 | 5,675,000 |
| Gas companies | 54 | 1,160 | 2,600,000 | 228 | 1,685 | 3,800,000 |
| Grocers, wholesale | 144 | 1,507 | 3,400,000 | 2,021 | 4,289 | 9,600,000 |
| Hardware dealers and plumbers | 32 | 315 | 650,000 | 1,222 | 1,781 | 3,600,000 |
| Ice dealers | 48 | 432 | 1,375,000 | 635 | 1,349 | 5,200,000 |
| Launderers, dyers and cleaners | 63 | 458 | 800,000 | 925 | 1,419 | 2,500,000 |
| Lumber dealers | 322 | 1,233 | 4,300,000 | 1,390 | 2,489 | 9,000,000 |
| Machinery dealers | 46 | 438 | 1,425,000 | 973 | 1,643 | 5,000,000 |
| Meat packers | 118 | 1,373 | 4,375,000 | 693 | 2,315 | 7,500,000 |
| Millers, hay, grain and feed dealers | 24 | 201 | 550,000 | 581 | 882 | 2,400,000 |
| Municipalities. (See also fire departments) | 172 | 1,204 | 3,600,000 | 617 | 2,368 | 7,250,000 |
| Newspapers and paper dealers | 53 | 478 | 950,000 | 359 | 934 | 1,875,000 |
| Oil refiners and dealers | 154 | 2,420 | 6,650,000 | 1,030 | 3,819 | 9,650,000 |
| Painters and decorators | 13 | 84 | 150,000 | 285 | 615 | 1,000,000 |
| Passenger service, public | 750 | 5,235 | 10,500,000 | 2,465 | 7,464 | 13,500,000 |
| Prepared food makers | 95 | 1,124 | 2,500,000 | 845 | 2,259 | 5,100,000 |
| Produce farmers | 36 | 281 | 700,000 | 447 | 979 | 2,500,000 |
| Professional haulers | 1,256 | 8,709 | 21,750,000 | 5,062 | 12,733 | 28,700,000 |
| Steel and iron merchants | 23 | 159 | 650,000 | 512 | 908 | 3,200,000 |
| Street railways | 29 | 230 | 700,000 | 164 | 595 | 1,800,000 |
| Tea, coffee and spice dealers | 19 | 177 | 550,000 | 178 | 389 | 1,100,000 |
| Telephone and telegraph companies | 38 | 1,009 | 3,000,000 | 227 | 1,309 | 3,900,000 |
| Textile makers | 12 | 89 | 275,000 | 276 | 392 | 1,350,000 |
| Wearing apparel makers and dealers | 35 | 224 | 560,000 | 395 | 793 | 1,975,000 |
| All other industries | 2,732 | 17,934 | 43,750,000 | 81,692 | 182,539 | 488,705,000 |
| Gross total | 8,249 | 67,642 | $184,825,000 | 115,464 | 272,548 | $745,975,000 |
| Duplication | 78 | 196 | 585,000 | 359 | 806 | 235,000 |
| Net totals | 8,171 | 67,446 | $184,240,000 | 115,105 | 271,742 | $745,740,000 |

* Installations comprising five or more machines each.
‡ Individual owners and machines.

# Random Facts Relating to Farmer Use of Motor Trucks

*(Gleaned from "Motor Trucks on the Farm," a booklet issued by the Capper Publications)*

It costs on an average as much today to haul the products of the farms to the shipping point as it does to ship them by freight to the general market.

The prices obtained for many classes of products by the farmer depend to a large extent upon his ability to place them on the market in good condition, at the right time.

The large increase in motor cars bought by farmers has doubled or tripled the average trading distance within the last five years.

While the truck is being introduced largely because it offers cheaper hauling than horses, a factor almost as important is its ability to do things entirely beyond the horse.

For the nine months ending September 30, 1918, the St. Joseph Stock Yards Co. received over the highways, 75,211 hogs; for the same period in 1917, 33,286; for the entire year of 1917, 56,529, while in 1916, the receipts were 52,048. For 24 days of October, 1918, there were received 11,622 cattle, 418 calves, 16,150 hogs and 25,922 sheep; for the entire month of October, 1917, 801 cattle, 877 calves, 5,834 hogs, and 1,607 sheep. Most of the trucks employed in bringing stock to market are engaged in this business regularly and they range from small trailers attached to the rear end of passenger vehicles to 4 and 5-ton trucks.

The truck cannot be introduced into farm work for single purposes. Many distinct and separate uses must be pointed out and in some cases developed. The total cost of operation for gasoline oil, grease and tires will range from 6 to 10 cents a mile a ton hauled.

For general farm use a truck ranging from ¾ to 1½ tons capacity is perhaps most useful, although for large farms the 2 and 3-ton outfits will do several times the work with the same labor.

Trucks shorten the miles. A livestock farmer, who hestitated nearly a year before buying a truck, found that the reduced shrinkage on his hogs when he hauled them to market more than paid for the entire cost of making the trip.

The expense of operating and keeping a truck is about one-half or less than that of a team.

Some authorities have asserted that in 50 years under ordinary development, the production of foodstuffs would not be sufficient to feed all the world. Eventually, therefore, the motor must be substituted for the horse in all lines, particularly heavy hauling.

Where winter wheat is grown, the plowing for the next crop should be begun as soon as harvest is over and trucks are reported to have done the needed hauling of the grain to market, at times when neither laborers nor horses could well be spared from the fields.

### Cost of Truck a Mile (Pre-War)

| | |
|---|---|
| Depreciation (based on 100,000 miles at 36c.) | $0.0195 |
| Tires | .0219 |
| Gasoline | .02 |
| Oil | .0013 |
| Repairs | .0120 |
| Total | $0.0747 |

### Cost of Truck a Trip (Pre-War)

| | |
|---|---|
| Driver, 2 hours 20 mintes, at 36c | $0.84 |
| Garage | .05 |
| Interest at 6 per cent | .33 |
| Insurance and Taxes | .20 |
| 19.8 miles at .0747c a mile | 1.48 |
| Total | $2.90 |

### Cost of Horse a Trip (One Trip a Day)

| | |
|---|---|
| 16 quarts of oats at 3c. a quart | $0.48 |
| 18 pounds hay at 2c. a pound | .36 |
| Bedding | .10 |
| Hostling | .10 |
| Shoeing and small repairs | .20 |
| Stable rent and insurance | .08 |
| Water | .001 |
| Insurance and taxes | .02 |
| Accident, sick and idle | .18 |
| Total | $1.5001 |

### Cost of Four Horses and Wagon (Wagon and Driver)

| | |
|---|---|
| Driver's pay a day | $3.30 |
| Four horses at $1.501 | 6.01 |
| Interest on wagon, $837 at 6 per cent | .14 |
| Depreciation | .32 |
| Repairs and maintenance | .08 |
| Total | $9.85 |

An Oklahoma market gardener now owning a truck sells his products in four towns where with horses he was limited to one market.

An automotive dealer at Cashion, Okla., operates a taxi-truck for farmers in the neighborhood, that, besides paying of itself, has been most effective in selling trucks to farmers.

The estimated cost of hauling in wagons from farms to shipping points averaged in 1918 about 30 cents a ton-mile for wheat, 33 cents for corn and 48 cents for cotton; for hauling in motor trucks or by tractors the averages are 15 cents for wheat or corn and 18 cents a ton-mile for cotton. These figures are based upon reports made by correspondents of the bureau of crop estimates of the Department of Agriculture.

The following table shows the average loads, trips a day and average cost of hauling by motor truck and wagon in 1918 in the United States and in the several geographical divisions thereof:

| ITEM | Distance | Round Trips per day | LOAD | | | Cost of hauling per ton per mile | | |
|---|---|---|---|---|---|---|---|---|
| | | | Corn | Wheat | Cotton | Corn | Wheat | Cotton |
| | Miles | No. | Bu. | Bu. | Bales | Cts. | Cts. | Cts. |
| United States: | | | | | | | | |
| Motor trucks .. | 11.3 | 3.4 | 58 | 84 | 6.6 | 15 | 15 | 18 |
| Wagons ..... | 9.0 | 1.2 | 39 | 56 | 3.6 | 33 | 30 | 48 |
| Geographical division: | | | | | | | | |
| New England— | | | | | | | | |
| Motor trucks .. | 10.0 | 4.5 | 62 | 60 | .. | 11 | 14 | .. |
| Wagons ..... | 7.2 | 1.8 | 38 | 45 | .. | 39 | 38 | .. |
| Middle Atlantic— | | | | | | | | |
| Motor trucks .. | 12.2 | 3.4 | 69 | 78 | .. | 14 | 14 | .. |
| Wagons ..... | 7.6 | 1.6 | 39 | 47 | .. | 39 | 38 | .. |
| South Atlantic— | | | | | | | | |
| Motor Trucks.. | 9.8 | 4.0 | 45 | 57 | 6.0 | 19 | 18 | 20 |
| Wagons ..... | 8.4 | 1.4 | 29 | 36 | 3.5 | 41 | 39 | 48 |
| North Central, east— | | | | | | | | |
| Motor trucks .. | 9.3 | 4.8 | 54 | 90 | .. | 11 | 9 | .. |
| Wagons ..... | 6.3 | 2.0 | 41 | 54 | .. | 29 | 26 | .. |
| North Central, west— | | | | | | | | |
| Motor trucks .. | 10.1 | 3.8 | 54 | 84 | .. | 18 | 14 | .. |
| Wagons ..... | 7.9 | 1.5 | 42 | 57 | .. | 33 | 29 | .. |
| South Central, east— | | | | | | | | |
| Motor trucks .. | 12.9 | 3.2 | 58 | 86 | 7.6 | 12 | 10 | 13 |
| Wagons ..... | 10.4 | 1.0 | 26 | 38 | 3.2 | 45 | 36 | 52 |
| South Central, west— | | | | | | | | |
| Motor trucks .. | 13.0 | 2.9 | 57 | 72 | 6.7 | 17 | 15 | 20 |
| Wagons ..... | 10.9 | 1.0 | 26 | 46 | 3.8 | 49 | 32 | 47 |
| Rocky Mountains— | | | | | | | | |
| Motor trucks .. | 21.0 | 1.2 | 48 | 70 | .. | 36 | 29 | .. |
| Wagons ..... | 20.2 | .4 | 46 | 66 | .. | 52 | 42 | .. |
| Pacific— | | | | | | | | |
| Motor trucks .. | 12.3 | 2.9 | 74 | 105 | .. | 20 | 17 | .. |
| Wagons ..... | 11.2 | 1.4 | 71 | 67 | .. | 23 | 22 | .. |

Only a small part of the Milwaukee milk supply comes in by rail. Most of it is hauled by motor trucks over concrete roads. The president of the largest dairy company of that vicinity says that where one man with two horses, which had to be changed every other day, formerly could haul about 40 cans a day, now a 2-ton truck will haul about 100 8-gallon cans, making two trips instead of one. In this city, of near one-half million inhabitants, milk usually costs about 11 cents a quart, while in most cities it is 13 cents or more. This means a saving to the people of Milwaukee of around a million dollars a year. All this is the natural consequence of a system of 129 miles of cement highways radiating from the city over which scores of trucks can operate 365 days in the year.

Many farmers have been inclined to decrease the production of perishable foodstuffs, owing to the time required for hauling to markets. Small lots of fruit, vegetables and other produce which could ordinarily be marketed have been left on the farm because of the labor shortage. Rural motor express gathers up such produce and delivers it to market promptly, thereby operating to increase the local food supply of perishables and to aid in the campaign to save staple foodstuffs.

The Kansas Highway Commission is promoting a rural motor express plan, claiming the following economic advantages: Food production is stimulated, since the right outlet to market encourages many farmers to expand production which they would not be justified in doing if they were obliged to do the transporting also. Shortage of labor is greatly offset from the fact that this system leaves the farmer on the farm and his time and that of his family is not consumed by trips to market. There is immediate improvement in the efficiency of the farm, since supplies and machinery and repairs can be secured from the city distributors.

W. C. Redfield, Secretary of Commerce, recently stated that "You might build up the railroads until they are ten tracks wide, and fill the rivers with steamers, and still the farmer would not be served."

On the line between Cleveland and Akron, Ohio, in a period of twelve months, motor trucks hauling freight released 31,200 freight cars for long hauls.

The size of farms and the topography of the country encourage the use of motor trucks in the Mid-West, distinctly a land of level plains and large farms. Here the rush seasons are more brisk and distances greater. Fewer hills and the extreme peaks in the farm work program place the horse at a greater disadvantage than elsewhere.

Farmers 20 miles from town using motor trucks are in effect as near as those only 5 miles away who depend on team hauling.

Motor trucks often make it possible to go to a market that is better than the nearest one.

Live stock shipped by motor trucks suffer less loss by shinkage and looking better, sell quicker and at a higher price.

Motor trucks release horses for farm work by relieving them of transporting produce to market. Motor trucks have no expense for feed in idle hours.

Where there is shartoge of farm labor motor trucks conserve.

Overloading is mechanically inadvisable but with careful driving it can be indulged in moderately and is an economy. One farmer reports, "If both of my trucks should break down entirely tomorrow, I could replace them with new ones from what I've saved carrying surplus loads."

Two or more farmers with not enough use for a truck apiece can buy and operate one together.

Motor trucks have made possible the consolidation of rural schools by hauling children greater distances than they could otherwise travel.

Motor trucks have made towns prosperous that were formerly not because remote from railroads.

Decreasing production of horse feed in favor of raising human foodstuffs will further increase the cost of horse hauling .

Modern farmers are mechanically informed to operate and maintain motor trucks economically.

Mid-West does not need to wait for paved roads to enjoy the advantages of motor trucks for its soil and climatic conditions are favorable to good dirt roads.

# More About Farmer Use of Trucks

## (45) Wisconsin Farmers' Use of Trucks

"In 1918, there were registered in Wisconsin, 6,860 trucks for use outside of the limits of incorporated cities."——Merlin Hull, Secretary of State.

## (46) Minnesota Farmers' Use of Trucks

"An automobile census of Minnesota for 1918 showed that out of 192,000 cars registered, there were approximately 85,000 R. F. D. addresses, and this indicates a total farmer ownership of approximately 110,000 automobiles."—The Farmer.

## (47) Annual Average Cost of Maintaining Horses on Farms

*(Compiled by United States Department of Agriculture from investigations during 1910 to 1913, inclusive. Based on careful records of 316 horses on 27 farms)*

**Gross Costs**

| Item | Illinois (154 Horses) | Per Cent | Ohio (72 Horses) | Per Cent | New York (90 Horses) | Per Cent |
|---|---|---|---|---|---|---|
| Feed and bedding* | $68.75 | 65.0 | $76.86 | 58.8 | $91.25 | 57.1 |
| Labor | 13.99 | 13.2 | 27.48 | 21.0 | 22.09 | 13.8 |
| Interest | 7.90 | 7.4 | 8.66 | 6.6 | 9.43 | 5.9 |
| Stabling | 4.95 | 4.7 | 7.18 | 5.5 | 12.98 | 8.1 |
| Use of equipment | 3.82 | 3.6 | 5.00 | 3.8 | 5.85 | 3.7 |
| Shoeing | .86 | .8 | 2.35 | 1.8 | 4.56 | 2.9 |
| Depreciation | 3.46 | 3.3 | ..... | .... | 11.56 | 7.2 |
| Net loss on colts | .04 | .... | 1.24 | 1.0 | ..... | .... |
| Miscellaneous | 2.12 | 2.0 | 1.90 | 1.5 | 2.09 | 1.3 |
| Total | $105.89 | 100.0 | $130.67 | 100.0 | $159.81 | 100.0 |

**Credits**

| | | | | | | |
|---|---|---|---|---|---|---|
| Manure | $5.24 | .... | $8.20 | .... | $13.36 | .... |
| Horse appreciation | ..... | .... | 2.10 | .... | ..... | .... |
| Colt profit | ..... | .... | ..... | .... | 1.43 | .... |
| Total | $5.24 | .... | $10.30 | .... | $14.79 | .... |

**Net Cost**

| | | | | | | |
|---|---|---|---|---|---|---|
| Cost of keeping, less credits | $100.65 | .... | $120.37 | .... | $145.02 | .... |

* The item of bedding is included with feed, because on many farms straw was used both as a feed and as bedding, and owing to the fact that refuse from the mangers was used for bedding, it was contrary to actual practice to attempt to make bedding a separate item.

Average hours of horse labor per day..... 3½
Average cost of horse labor per working hour.....13 cents
Average acres in crops per horse, large farms.....22.2 acres
Average acres in crops per horse, small farms.....16.8 acres

The costs shown in the table are much lower than at the present time, when prices of feed, labor and other items are much higher.

## (48) Four Million Tons of Milk Hauled Over Wisconsin Roads Yearly

*(Excerpts from a leaflet issued by Hoard's Dairyman)*

"The State of Wisconsin is vitally interested in securing good roads because it is a dairy state. The dairy farmer must travel to market practically every day.

"The State Department of Agriculture estimated that on January 1, 1918, there were 1,785,000 milk cows on Wisconsin farms and that the average production per cow is 4,780 pounds of milk.

"Based on these figures, the total amount of milk produced in Wisconsin in 1917 was 8,532,300,000 pounds.

"This means that 4,266,000 tons of milk were hauled over the roads of Wisconsin by dairy farmers in the year 1917.

"If the average haul of this milk was three miles it would mean 12,798,000 ton-miles.

"If the average loss caused through the smallness of the load due to bad roads, the additional time consumed, the deterioration of the quality through delay, is 10 cents per ton-mile, it would make a loss of approximately $1,280,000 a year to the farmers of Wisconsin.

"It is estimated that in 1917 this state produced 26,000,000 pounds of cheese, 110,000 000 pounds of butter; that the condenseries handled from six to eight million pounds of milk and that for the Chicago market alone 300,000,000 pounds of milk was shipped into that city."—Good Roads for Wisconsin Magazine.

(49)

## Sixty Million Miles Traveled in One Year Hauling Wisconsin's Dairy Products

The following statistics were compiled by former Secretary of State John S. Donald, a prominent Wisconsin farmer. The figures are based upon a total of 3,300 cheese factories, creameries and condenseries in the state:

Take an average of 10 patrons to each factory. (Very conservative figure).

Assume the average distance from the farm to factory to be 2 miles.

In delivering milk, 4 miles' travel each day to and from the factory, 40 miles for each factory per day.

One hundred and thirty-two thousand miles aggregate of all factories per day.

If milk must be delivered on this basis for only 300 days, it means 39,600,000 miles of travel per year.

Add to this the delivery of products from the factory to the station, milk to condensing factories, delivered on milk routes, etc., it will easily reach 60,000,000 miles of travel for the Dairy industry alone.

(50)

## Statements from Big Dairymen

"There were times, a few years ago, when fifteen cans of milk would make a good load for a team of horses and it was impossible to run trucks of any nature. At the present time most of the milk is being brought in on trucks of various kinds and the load runs from 50 to 100 cans."—G. R. Rice, general manager of the Milwaukee Milk Producers' Association.

"Formerly our milk was drawn in by horse and wagon. At this time all the milk from the different roads is hauled in by auto truck."—Henry Behrns, president of the Cedarburg Milk Co.

(51)

# Iowa Farmers' Use of Trucks and Tractors

## Number of Trucks and Tractors Owned in Iowa in Relation to Number and Size of Farms, December 31, 1918

*(From a leaflet issued by Wallace's Farmer)*

| County | Number of Farms in County | Average Size of Farms | Number of Trucks in County | Number of Tractors in County |
|---|---|---|---|---|
| Adair | 2,038 | 167.1 | 30 | 14 |
| Adams | 1,539 | 163.1 | 15 | 9 |
| Allamakee | 2,015 | 176.7 | 10 | 11 |
| Appanoose | 1,762 | 171.3 | 41 | 19 |
| Audubon | 1,672 | 158.4 | 26 | 22 |
| Benton | 2,324 | 177.6 | 18 | 78 |
| Black Hawk | 2,126 | 155.1 | 219 | 43 |
| Boone | 2,396 | 140.9 | 44 | 72 |
| Bremer | 1,866 | 134.7 | 26 | 47 |
| Buchanan | 2,321 | 147.7 | 35 | 13 |
| Buena Vista | 1,915 | 182.8 | 34 | 101 |
| Butler | 1,955 | 170.0 | 20 | 40 |
| Calhoun | 1,914 | 178.0 | 24 | 79 |
| Carroll | 1,953 | 170.0 | 34 | 69 |
| Cass | 2,042 | 169.8 | 48 | 71 |
| Cedar | 2,045 | 160.6 | 25 | 27 |
| Carro Gordo | 1,907 | 173.1 | 154 | 47 |
| Cherokee | 1,784 | 196.7 | 17 | 99 |
| Chickasaw | 1,858 | 153.3 | 23 | 15 |
| Clarke | 1,354 | 174.2 | 13 | 7 |
| Clay | 1,627 | 201.7 | 20 | 134 |
| Clayton | 2,740 | 157.0 | 13 | 49 |
| Clinton | 2,505 | 157.6 | 119 | 53 |
| Crawford | 2,396 | 178.6 | 26 | 45 |
| Dallas | 2,189 | 158.1 | 43 | 52 |
| Davis | 2,103 | 138.9 | 9 | 11 |
| Decatur | 1,845 | 150.8 | 24 | 6 |
| Delaware | 2,097 | 161.5 | 25 | 46 |
| Des Moines | 1,710 | 126.7 | 85 | 28 |
| Dickinson | 1,041 | 211.1 | 6 | 36 |
| Dubuque | 2,196 | 157.4 | 196 | 15 |
| Emmet | 1,106 | 203.4 | 9 | 33 |
| Fayette | 2,936 | 142.0 | 28 | 24 |
| Floyd | 1,766 | 165.3 | 17 | 29 |
| Franklin | 2,003 | 177.0 | 18 | 47 |
| Fremont | 1,580 | 153.8 | 6 | 29 |
| Greene | 1,888 | 176.5 | 31 | 48 |
| Grundy | 1,629 | 187 4 | 20 | 38 |
| Guthrie | 2.171 | 153.7 | 20 | 16 |
| Hamilton | 2,089 | 165 5 | 49 | 101 |
| Hancock | 1,846 | 189.8 | 8 | 40 |
| Hardin | 1,892 | 169 4 | 30 | 46 |
| Harrison | 2,521 | 145.2 | 50 | 37 |
| Henry | 1.697 | 145.5 | 24 | 10 |
| Howard | 1,578 | 168.1 | 9 | 7 |
| Humboldt | 1,352 | 187 9 | 25 | 112 |
| Ida | 1.412 | 192.0 | 13 | 58 |
| Iowa | 2.054 | 161.3 | 21 | 44 |
| Jackson | 2.071 | 167.3 | 30 | 8 |
| Jasper | 2.862 | 150 6 | 46 | 47 |
| Jefferson | 1,705 | 146.4 | 13 | 19 |
| Johnson | 2,415 | 143.5 | 46 | 108 |
| Jones | 1,995 | 159.3 | 39 | 24 |
| Keokuk | 2,551 | 132.8 | 25 | 20 |
| Kossuth | 2,799 | 203.3 | 59 | 139 |
| Lee | 1,984 | 142.6 | 129 | 31 |
| Linn | 2,974 | 129.0 | 260 | 35 |
| Louisa | 1,367 | 154.1 | 19 | 40 |
| Lucas | 1,587 | 159.6 | 28 | 10 |
| Lyon | 1,696 | 207.7 | 14 | 62 |
| Madison | 2,117 | 153.5 | 19 | 34 |
| Mahaska | 2,589 | 132.6 | 55 | 29 |
| Marion | 2,224 | 144.9 | 59 | 15 |
| Marshall | 2,337 | 138.5 | 100 | 62 |
| Mills | 1,453 | 164.3 | 35 | 52 |
| Mitchell | 1,696 | 161.9 | 8 | 63 |
| Monona | 2,121 | 180.2 | 8 | 60 |
| Monroe | 1,582 | 137.6 | 31 | 2 |
| Montgomery | 1,668 | 153.6 | 60 | 24 |
| Muscatine | 1,608 | 144.6 | 29 | 43 |
| O'Brien | 1,808 | 188.0 | 28 | 70 |
| Osceola | 1,190 | 202.7 | 4 | 51 |
| Page | 2,045 | 163.3 | 56 | 25 |
| Palo Alto | 1,690 | 175.5 | 15 | 55 |
| Plymouth | 2.676 | 190.4 | 49 | 103 |
| Pocahontas | 2,018 | 174.6 | 21 | 115 |
| Polk | 2,445 | 121.5 | 961 | 58 |
| Pottawattamie | 2.951 | 174.6 | 204 | 57 |
| Poweshiek | 2,070 | 163.0 | 24 | 57 |
| Ringgold | 1,908 | 160.3 | 11 | 4 |
| Sac | 1,802 | 185.3 | 24 | 85 |
| Scott | 2,213 | 121.9 | 578 | 43 |
| Shelby | 2 041 | 169.9 | 34 | 20 |
| Sioux | 2,541 | 175.9 | 24 | 51 |
| Story | 2.202 | 151.8 | 76 | 55 |
| Tama | 2,558 | 168.9 | 36 | 49 |
| Taylor | 2,246 | 139.4 | 13 | 7 |
| Union | 1.495 | 168.0 | 34 | 5 |
| Van Buren | 1.776 | 152.3 | 4 | 5 |
| Wapello | 1.960 | 121.4 | 93 | 13 |
| Warren | 2 299 | 147.2 | 30 | 16 |
| Washington | 2 041 | 154.5 | 16 | 39 |
| Wayne | 1.798 | 167.0 | 13 | 16 |
| Webster | 2.430 | 176.9 | 113 | 127 |
| Winnebago | 1.555 | 158 6 | 8 | 28 |
| Winneshiek | 2.748 | 150.9 | 18 | 32 |
| Woodbury | 1 404 | 182.2 | 405 | 46 |
| Worth | 1.761 | 191.0 | 9 | 67 |
| Wright | 2,758 | 174.3 | 21 | 60 |
| Total (99 counties) | 198,585 | (Av.) 163.4 | 5,834 | 4,363 |

# (52) 6,146,617 Motor Vehicles in U. S. A.

## Registrations, Licenses and Revenues in the United States During the Calendar Year 1918

*From an Article by Andrew P. Anderson, Highway Engineer, Bureau of Public Roads, in "Public Roads," published by the Department of Agriculture*

A total of 6,146,617 motor cars and commercial vehicles and 240,564 motorcycles were registered in 1918 in the 48 States and the District of Columbia. The registration and license fees, including chauffeurs, operators, and dealers, amounted to a total of $51,477,416.61. These figures do not include about 107,000 automobiles and motor trucks manufacturerd for the Federal Government during the year 1918, which, as a rule, were not registered and paid no registration fees.

As compared with 1917, the data for 1918 represent an increase of 1,163,277, or 19 per cent. in the number of cars, and $13,976,180, or 27 per cent. in revenues. While these figures represent a striking increase in both the number of cars registered and the revenues collected, they show a considerable decline in the percentage of rate increase which existed throughout the five-year period previous to 1918. During this period the annual average increase in the number of cars over each succeeding year was 44 per cent. and the increase in the amount of revenues was 45 per cent. as compared with the 19 and 27 per cent. increases for the year 1918. This decrease in the rate is no doubt largely, if not entirely due to the effect of the war.

### Motor Vehicle Registrations, Licenses and Revenues, 1918

| State. | Automobiles. | Motor trucks and commercial vehicles. | Motorcycles. | Reregistrations or transfers. | Owners' and chauffeurs' licenses. | Manufacturers' and dealers' licenses. | Total gross motor-vehicle registration and license revenues. | Motor-vehicle revenues available for road work. | | Average gross revenue return per motor car registration. | Population per motor car. | Motor cars per mile of public rural road. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | By or under State highway department. | Under direction of local authorities. | | | |
| Alabama [1] | 37,874 | 8,297 | 1,180 | ..... | 2,455 | ..... | $470,273.50 | ..... | ..... | $10.18 | 51 | 0.8 |
| Arizona | 21,498 | 2,407 | 685 | ..... | 444 | 237 | 142,288.25 | $142,288.25 | ..... | 5.91 | 11 | 2.0 |
| Arkansas | 41,458 | [2] | ..... | 481 | 638 | ..... | 410,648.50 | 410,648.50 | ..... | 9.80 | 42 | .8 |
| California | [3] 407,761 | [2] | 27,887 | 40,720 | 420,480 | 2,475 | 3,524,035.61 | 1,421,319.79 | $1,421,319.79 | 8.64 | 7 | 6.6 |
| Colorado | 83,244 | [2] | 3,872 | 4,580 | 9,686 | 2,015 | 379,559.20 | 174,432.40 | 174,432.41 | 4.56 | 12 | 2.1 |
| Connecticut | [4] 70,807 | 15,260 | 4,246 | 10,650 | 104,000 | 360 | 1,285,164.27 | 1,285,164.27 | ..... | 14.91 | 14 | 6.1 |
| Delaware | 12,955 | [2] | 707 | 889 | 17,060 | 328 | 232,449.00 | 232,449.00 | ..... | 17.94 | 17 | 3.6 |
| District of Columbia | [5] 25,359 | [6] 5,131 | 2,353 | ..... | 17,255 | 738 | 220,753.00 | ..... | ..... | 7.24 | 12 | ..... |
| Florida | 49,306 | [7] 4,880 | 1,629 | 1,333 | 44,934 | 314 | 345,775.36 | 288,775.36 | ..... | 6.38 | 17 | 3.0 |
| Georgia | 99,676 | 5,000 | 1,681 | ..... | 4,762 | 940 | 331,816.19 | ..... | 305,872.07 | 3.17 | 29 | 1.3 |
| Idaho | 32,289 | [2] | 707 | 361 | 968 | 429 | 576,554.61 | 144,138.65 | 432,415.96 | 17.86 | 14 | 1.2 |
| Illinois | 389,620 | [2] | 10,834 | ..... | 45,696 | 3,548 | 2,764,330.27 | 2,764,330.28 | ..... | 7.09 | 16 | 4.0 |
| Indiana | 227,160 | [2] | 9,112 | ..... | 4,641 | 990 | 1,293,128.00 | ..... | 1,162,125.00 | 5.69 | 12 | 3.0 |
| Iowa | 278,313 | [2] | 2,529 | 59,797 | ..... | 2,454 | 2,547,595.80 | [8] 2,547,595.80 | ..... | 9.15 | ..... | 2.7 |
| Kansas | 189,163 | [2] | 4,173 | 4,195 | ..... | 1,431 | 978,837.00 | ..... | 878,500.50 | 5.17 | 10 | 1.7 |
| Kentucky | 65,884 | [2] | 1,479 | ..... | 3,000 | ..... | 402,250.11 | 355,000.00 | ..... | 6.08 | 36 | 1.1 |
| Louisiana | 40,000 | [2] | 399 | 400 | ..... | 402 | 240,000.00 | ..... | 216,000.00 | 6.00 | 46 | 1.6 |
| Maine | 40,372 | 4,200 | 1,497 | 2,418 | 54,179 | 435 | 570,171.00 | 570,171.00 | ..... | 14.12 | 19 | 1.9 |
| Maryland | 67,839 | [9] 6,827 | 5,351 | 3,474 | 31,096 | 2,034 | 1,189,984.25 | 827,203.21 | ..... | 15.94 | 18 | 4.5 |
| Massachusetts | 160,486 | 33,011 | 12,862 | 16,158 | 235,140 | 2,493 | 2,184,821.00 | 2,135,000.00 | ..... | 11.29 | 19 | 10.4 |
| Michigan | 235,608 | 26,517 | 7,818 | 13,128 | 25,007 | 845 | 2,875,266.32 | 1,479,408.48 | 1,395,857.84 | 10.97 | 11 | 3.5 |
| Minnesota | 204,458 | [2] | 5,021 | 2,749 | 6,253 | 3,985 | 1,076,811.00 | 1,076,811.00 | ..... | 5.32 | 11 | 2.2 |
| Mississippi [10] | 46,000 | 2,400 | 1,000 | ..... | ..... | ..... | 335,000.00 | ..... | 300,000.00 | 6.92 | 41 | 1.1 |
| Missouri | 188,040 | [2] | 3,980 | 9,385 | 210,020 | 1,660 | 1,394,762.19 | 1,234,475.03 | ..... | 7.41 | 13 | 1.9 |
| Montana | 51,053 | [2] | 852 | 934 | 1,470 | 298 | 350,913.50 | 237,720.50 | 79,240.17 | 6.87 | 9 | 1.3 |
| Nebraska | 173,374 | [2] | 2,900 | 1,765 | ..... | 2,195 | 536,897.00 | ..... | 480,000.00 | 3.09 | 7 | 2.1 |
| Nevada | 8,159 | [2] | 121 | ..... | ..... | 50 | 31,082.75 | 25,288.25 | 1,939.50 | 3.81 | 13 | .7 |
| New Hampshire | [11] 22,106 | 2,711 | 2,453 | 2,254 | [12] 31,146 | 195 | 509,335.10 | 455,372.09 | ..... | 20.52 | 18 | 1.7 |
| New Jersey | 139,783 | [13] 15,736 | 12,517 | 26,890 | 201,022 | 1,368 | 2,431,756.70 | 2,393,939.33 | ..... | 15.63 | 19 | 11.1 |
| New Mexico | 17,647 | [2] | 300 | ..... | ..... | 148 | 105,631.35 | 45,751.42 | 45,751.42 | 5.97 | 25 | 1.5 |
| New York | 365,874 | [14] 93,414 | 28,597 | ..... | 147,756 | 2,252 | 4,945,297.50 | 2,563,536.81 | 1,445,329.09 | 10.76 | 22 | 5.8 |
| North Carolina | 72,313 | [2] | 1,333 | ..... | ..... | 600 | 394,738.67 | 69,079.27 | 276,317.07 | 5.46 | 33 | 1.4 |
| North Dakota | 71,678 | [2] | 1,659 | 935 | ..... | 847 | 471,428.77 | 314,285.85 | 157,142.92 | 6.44 | 11 | 1.0 |
| Ohio | 412,775 | [2] | 20,717 | 9,215 | 159 | 3,272 | 2,125,425.50 | 1,975,425.50 | ..... | 5.15 | 12 | 4.8 |
| Oklahoma | [15] 121,500 | [2] | 1,622 | ..... | ..... | 3,116 | 1,102,379.77 | 992,141.79 | ..... | 9.07 | 18 | 1.1 |
| Oregon | 63,324 | [2] | 3,501 | 9,451 | 3,128 | 451 | 461,422.00 | 419,922.00 | ..... | 7.28 | 13 | 1.7 |
| Pennsylvania | 363,001 | [16] 31,185 | 26,621 | 24,734 | 204,473 | 7,887 | 4,048,185.50 | 4,048,185.50 | ..... | 10.05 | 22 | 4.3 |
| Rhode Island | 29,178 | [17] 7,040 | 1,464 | 3,179 | 38,467 | 140 | 385,608.00 | 385,608.00 | ..... | 10.95 | 18 | 16.2 |
| South Carolina | 55,492 | [2] | 1,147 | 1,368 | ..... | 2,930 | 300,216.71 | 60,043.34 | 240,173.37 | 5.41 | 30 | 1.3 |
| South Dakota | 90,521 | [2] | 1,323 | 2,437 | ..... | 1,118 | 282,742.00 | ..... | 240,330.70 | 3.21 | 8 | .9 |
| Tennessee [10] | 63,000 | [2] | 800 | ..... | ..... | 450 | 390,000.00 | 351,000.00 | ..... | 6.19 | 36 | 1.4 |
| Texas | 251,118 | [2] | 2,496 | 24,514 | 22,738 | 4,002 | 2,039,588.77 | 806,349.49 | 1,019,794.38 | 8.12 | 18 | 1.9 |
| Utah | 27,204 | 5,069 | 1,298 | 500 | 1,474 | 175 | 229,203.24 | 215,508.54 | ..... | 7.10 | 14 | 3.6 |
| Vermont | 20,681 | 1,872 | 734 | 1,798 | 27,980 | 158 | 398,855.64 | 368,855.64 | ..... | 17.68 | 16 | 1.5 |
| Virginia | 72,228 | [2] | 2,414 | ..... | 4,760 | 386 | 684,636.35 | 650,431.63 | ..... | 9.48 | 31 | 1.3 |
| Washington | [18] 101,161 | 16,117 | 6,317 | 11,619 | ..... | 678 | 875,391.25 | 790,996.25 | ..... | 7.46 | 13 | 2.7 |
| West Virginia [10] | 38,750 | [2] | 825 | ..... | 3,840 | 569 | 447,705.11 | 447,705.11 | ..... | 11.55 | 36 | 1.2 |
| Wisconsin | 189,436 | 6,817 | 7,238 | ..... | ..... | 1,500 | 2,076,701.00 | 1,505,025.75 | 501,675.25 | 10.58 | 13 | 2.5 |
| Wyoming | 16,200 | [2] | 313 | ..... | ..... | 167 | 80,000.00 | ..... | ..... | 4.94 | 11 | 1.1 |
| Total | 5,852,726 | [20] 293,891 | [20]240,564 | [20]287,311 | [20] 1,926,127 | [20] 63,065 | 51,477,416.61 | 36,161,473.08 | 10,774,217.44 | 8.37 | 16 | 2.5 |

[1] Fiscal year ending Sept. 30.
[2] Included under automobiles.
[3] Does not include 701 trailers.
[4] Does not include 3,441 public service registrations.
[5] Does not include 3,222 free permits nor 10,252 nonresident registrations.
[6] Does not include 1,684 nonresident vehicles.
[7] Does not include 151 trailers and commercial cars.
[8] Devoted to State and local road work and payment of registration expenses.
[9] Does not include 73 tractors nor 3,127 motor busses and commercial trucks.
[10] Approximate.
[11] Does not include 1,446 nonresident registrations.
[12] Does not include 1,447 nonresident chauffeurs and owners.
[13] Includes only cars weighing more than 4,000 pounds.
[14] Includes 18,105 omnibuses, but does not include 2,218 trailers.
[15] Includes trucks but does not include 2,674 traction engines.
[16] Does not include 3,103 traction engines and 1,284 trailers.
[17] Does not include 29 tractor registrations.
[18] Does not include 976 exempt cars.
[19] For period July-December, 1918.
[20] Partial total.

### 87 Per Cent. in United States

There is very little definite information available as to the number of motor cars in countries other than the United States and Canada. According to the best available data and estimates, the total number of motor cars in the world amounts to about

7,000,000, of which more than 87 per cent, are in the United States, nearly 4 per cent. in Canada, slightly less than 1 per cent. in the other countries of North and South America, and 7 per cent. in Europe. About 265,000 cars are reported to be registered in Canada, in all the provinces of which annual registrations are now in force. Probably not more than 65,000 cars are found in all of North and South America outside of the United States and Canada. The present number of cars in Europe is not known with any degree of accuracy. Estimates based on data available for 1914 would place the total number

$193,000, or roughly the same as the returns from the District of Columbia for the year 1918. Furthermore, in 1906 the gross registration revenues represented less than three-tenths of 1 per cent. of the total rural road and bridge expenditures for that year. In 1918 the motor-vehicle revenues represented approximately 21 per cent. of the total road and bridge expenditures for that year. Furthermore, while in 1906 practically none of the motor-vehicle revenues were applied to road construction or maintenance, in 1918 nearly 91 per cent. of the gross returns, or $46,935,691, were devoted to this purpose in

## Motor Car Registrations and Gross Motor-Vehicle Revenues, 1914 to 1918

| | Motor-car registration.[1] | | | | | Total gross revenues. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1914 | 1915 | 1916 | 1917 | 1918 | 1914 | 1915 | 1916 | 1917 | 1918 |
| Alabama | 8,672 | 11,634 | 21,636 | 32,873 | 46,171 | $113,202 | $180,744 | $203,655 | $217,700 | $470,274 |
| Arizona | 5,040 | 7,753 | 12,300 | 19,890 | 23,905 | 34,077 | 45,579 | 73,000 | 117,643 | 142,288 |
| Arkansas | 5,642 | 8,021 | 15,000 | 28,693 | 41,458 | 56,420 | 80,551 | 150,000 | 205,176 | 410,649 |
| California | 123,504 | 163,797 | 232,440 | 306,916 | 407,761 | 1,338,785 | 2,027,432 | 2,192,699 | 2,846,030 | 3,524,036 |
| Colorado | 17,756 | 28,894 | 43,296 | 87,460 | 83,244 | 80,047 | 120,801 | 197,795 | 296,808 | 379,559 |
| Connecticut | 27,786 | 41,121 | 56,048 | 74,645 | 86,067 | 406,623 | 536,970 | 768,728 | 1,080,757 | 1,285,164 |
| Delaware | 3,050 | 5,052 | 7,102 | 10,700 | 12,955 | 35,672 | 55,596 | 85,249 | 133,883 | 232,449 |
| District of Columbia | 4,833 | 8,009 | 13,118 | 15,493 | 30,490 | 20,147 | 29,396 | 47,624 | 55,928 | 220,753 |
| Florida | [2] 3,368 | [2] 10,850 | 20,718 | [2] 27,000 | 54,186 | [4] 6,736 | [2] 60,000 | 127,176 | [2] 170,000 | 345,775 |
| Georgia | 20,915 | 25,000 | 46,025 | 70,324 | 104,676 | 104,575 | 125,000 | 154,735 | 229,653 | 331,816 |
| Idaho | 3,346 | 7,071 | 12,999 | 24,731 | 32,289 | 58,580 | 121,259 | 213,758 | 412,641 | 576,555 |
| Illinois | 131,140 | 180,832 | 248,429 | 340,292 | 389,620 | 699,725 | 924,906 | 1,236,566 | 1,588,835 | 2,764,330 |
| Indiana | 66,500 | 96,915 | 139,065 | 192,194 | 227,160 | 432,309 | 587,318 | 817,285 | 1,096,159 | 1,293,128 |
| Iowa | 106,087 | 145,109 | 198,587 | 254,462 | 278,313 | 1,040,136 | 1,533,054 | 1,776,170 | 2,249,655 | 2,547,596 |
| Kansas | 49,374 | 72,520 | 112,122 | 159,343 | 189,163 | 268,471 | 387,588 | 585,762 | 830,878 | 978,837 |
| Kentucky | 11,766 | 19,500 | 31,500 | 47,420 | 65,884 | 85,883 | 117,117 | 184,741 | 287,314 | 402,250 |
| Louisiana | [2] 12,000 | 11,380 | 17,000 | 28,394 | 40,000 | [2] 12,000 | 75,600 | 112,000 | 166,835 | 240,000 |
| Maine | 15,700 | 21,545 | 30,972 | 41,499 | 40,372 | 192,542 | 268,412 | 363,562 | 491,696 | 570,171 |
| Maryland | 20,213 | 31,047 | 44,245 | 60,943 | 74,666 | 268,231 | 386,565 | 565,302 | 807,395 | 1,189,984 |
| Massachusetts | 77,246 | 102,633 | 136,809 | 174,274 | 193,497 | 923,961 | 1,235,724 | 1,602,958 | 1,969,994 | 2,184,821 |
| Michigan | 76,389 | 114,845 | 160,052 | 247,006 | 262,125 | (5) | 373,833 | 1,739,344 | 2,471,271 | 2,875,266 |
| Minnesota | 67,862 | 93,269 | [4] 46,000 | [6] 54,009 | 204,458 | 132,398 | [2] 160,540 | 82,469 | 100,000 | 1,076,811 |
| Mississippi[3] | 5,694 | 9,669 | 25,000 | 36,600 | 48,400 | 51,146 | 76,700 | 175,000 | 250,000 | 335,000 |
| Missouri | 54,468 | 76,462 | 103,587 | 147,528 | 188,040 | 235,873 | 323,289 | 439,315 | 617,942 | 1,394,762 |
| Montana | 10,200 | 14,540 | 25,105 | 42,749 | 51,053 | 27,000 | 33,120 | 52,768 | 290,936 | 350,914 |
| Nebraska | 16,385 | 59,000 | 101,200 | 148,101 | 173,374 | 34,325 | [2] 183,000 | 311,334 | 451,303 | 536,897 |
| Nevada | 1,487 | 2,009 | 4,919 | 7,160 | 8,159 | 4,331 | 7,875 | 20,116 | 31,166 | 31,083 |
| New Hampshire | 9,571 | 13,449 | 17,508 | 22,267 | 24,817 | 185,288 | 257,776 | 344,434 | 425,305 | 509,335 |
| New Jersey | 62,961 | 81,848 | 109,414 | 141,918 | 155,519 | 814,536 | 1,062,923 | 1,406,806 | 1,923,164 | 2,431,757 |
| New Mexico | 3,090 | 5,100 | 8,228 | 14,086 | 17,647 | 19,663 | 29,625 | 47,865 | 80,843 | 105,631 |
| New York | 168,223 | 255,242 | 314,222 | 406,016 | 459,292 | 1,529,852 | 1,991,181 | 2,658,042 | 4,284,144 | 4,945,298 |
| North Carolina | 14,677 | 21,000 | 33,904 | 55,950 | 72,313 | 89,580 | 123,000 | 206,101 | 321,923 | 394,739 |
| North Dakota | 17,347 | 24,908 | 40,446 | 62,993 | 71,678 | 55,964 | 79,245 | 125,283 | 211,536 | 471,429 |
| Ohio | 122,504 | 181,332 | 252,431 | 346,772 | 412,775 | 685,457 | 984,622 | 1,286,405 | 1,766,427 | 2,125,426 |
| Oklahoma | 13,500 | 25,032 | 52,718 | 100,199 | 121,500 | 13,500 | 154,892 | 555,011 | 853,659 | 1,102,380 |
| Oregon | 16,447 | 23,585 | 33,917 | 48,632 | 63,324 | 77,592 | 108,881 | 146,232 | 196,787 | 461,422 |
| Pennsylvania | 112,854 | 160,137 | 230,578 | 325,153 | 394,186 | 1,185,039 | 1,665,276 | 2,325,057 | 3,268,025 | 4,048,186 |
| Rhode Island | 12,331 | 16,362 | 21,406 | 37,046 | 35,218 | 157,020 | 206,440 | 264,737 | 346,117 | 385,608 |
| South Carolina[3] | 14,000 | 15,000 | [7] 25,000 | 38,332 | 55,492 | 14,000 | 15,000 | 10,000 | 113,557 | 300,217 |
| South Dakota | 20,929 | 28,724 | 44,271 | 67,158 | 90,521 | 125,000 | [2] 180,000 | 140,746 | 210,592 | 282,742 |
| Tennessee | [2] 19,769 | [2] 7,618 | [2] 30,000 | 48,000 | 63,000 | 39,538 | [2] 34,000 | 186,953 | 322,200 | 390,000 |
| Texas[3] | 40,000 | 40,000 | [7] 125,000 | 192,961 | 251,118 | 20,000 | 20,000 | 20,000 | 858,978 | 2,039,589 |
| Utah | 2,253 | 9,177 | 13,507 | 24,076 | 32,273 | 4,852 | [2] 60,000 | 93,494 | 170,707 | 229,203 |
| Vermont | 8,475 | 11,499 | 15,671 | 21,633 | 22,553 | 154,267 | 218,480 | 297,992 | 363,541 | 398,856 |
| Virginia | 13,984 | 21,357 | 35,426 | 55,661 | 72,228 | 120,814 | 176,875 | 271,266 | 518,566 | 684,636 |
| Washington | 30,253 | 38,823 | 60,734 | 91,337 | 117,278 | 60,506 | 238,717 | 350,052 | 519,526 | 875,391 |
| West Virginia | 6,159 | 13,279 | 20,571 | 31,300 | 38,750 | 60,648 | 128,952 | 198,436 | 359,339 | 447,705 |
| Wisconsin | 53,161 | 79,741 | 115,645 | 158,637 | 196,253 | 293,580 | 431,977 | 615,721 | 861,278 | 2,076,701 |
| Wyoming | 2,428 | 3,976 | 7,125 | 12,523 | 16,200 | 12,140 | 19,880 | 35,625 | 57,421 | 80,000 |
| Total | 1,711,339 | 2,445,664 | 3,512,996 | 4,983,340 | 6,146,617 | 12,381,951 | 18,245,711 | 25,865,370 | 37,501,233 | 51,477,417 |

[1] Does not include motor cycles nor dealers' and manufacturers' licenses.
[2] State registrations only.
[3] Estimated.
[4] Registration law declared unconstitutional.
[5] Cars registered during 1916; total number of cars, approximately 138,000.
[6] Cars registered, 1917.
[7] Estimated number of cars in State.
[8] Total cars registered under perennial system.
[9] Registrations 1915 only.

below 500,000 or about the same as the number of motor cars at present in the State of New York.

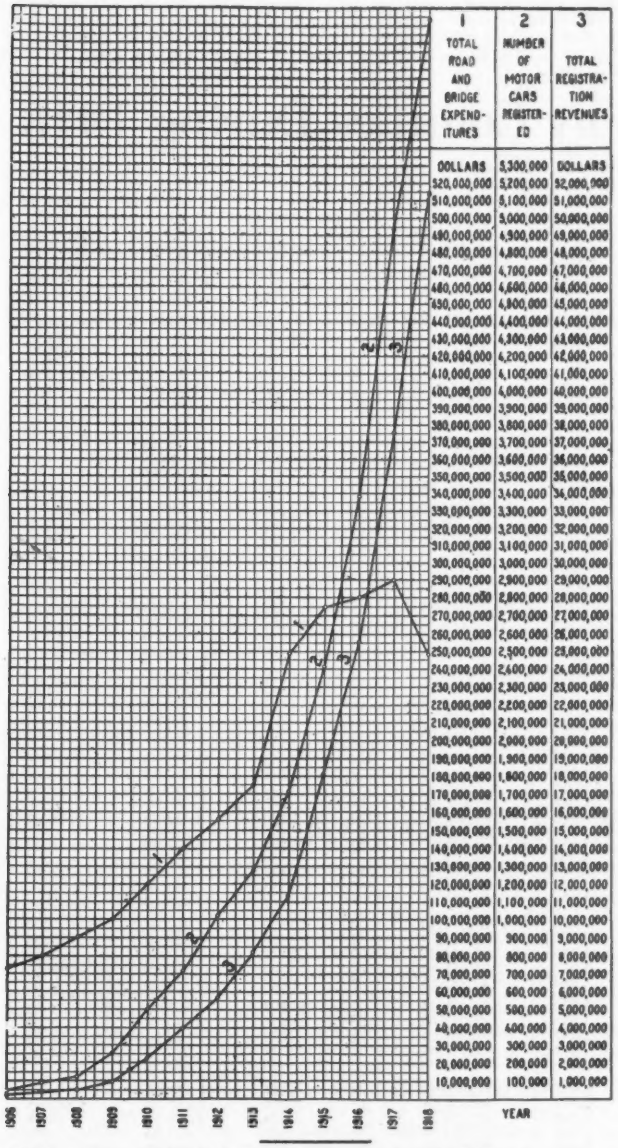
### Registration and Revenue Increase in U. S.

The increase in motor-car registration and revenues in the United States during the past dozen years represents some interesting comparisons. This is especially true in respect to the use made of the revenues. In 1906 the total registrations were approximately 48,000 cars, paying a gross revenue of about

46 States, and of the total amount applied to road work 77 per cent. or $36,161,473, was expended more or less directly under the control or supervision of the state highway departments. The 9 per cent not applied to road work was expended very largely for plates and in carrying out the provisions of the motor-vehicle registration laws of the several States. The approximate relations and rates of variation of the three factors, total rural road and bridge expenditures, motor-vehicle registration and license revenues, and the number of motor-car registrations from 1903 to 1918, inclusive, are shown graphically in the accompanying chart.

### Car Distribution Not Uniform

The total road mileage of the United States outside incorporated towns and cities is about 2,456,000 miles. With a total registration of 6,146,617 motor vehicles there was, therefore, an average of 2.5 motor cars for every mile of public road in the United States. The distribution of cars among the several states, however, is far from uniform. Thus, Nevada has but 2 cars to every 3 miles of road, while Rhode Island has 16 cars to each mile of rural road. Furthermore, while there was an average of 1 motor car registration for every 16 persons in the United States, in the States of California and Nebraska there was 1 car for every 7 persons, and 1 car for every 8 persons in Iowa and South Dakota, but only 1 car for every 51 persons in Alabama, every 46 in Louisiana, or every 42 persons in Arkansas.




## (53) Passenger Cars and Trucks in Use in the United States

*(Figures based on separate registrations of commercial cars in 16 states and estimates of number of commercial cars by Secretaries of State in 5 states)*

| Year | Passenger Cars Number | Commercial Cars Number | Commercial Cars Per Cent. Trucks to Total |
|---|---|---|---|
| 1914 Dec. 31) | 1,574,431 | 136,907 | 8.0 |
| 1915 " " | 2,240,229 | 205,435 | 8.4 |
| 1916 " " | 3,243,631 | 301,321 | 8.5 |
| 1917 " " | 4,643,481 | 442,478 | 8.7 |
| 1918 (Dec. 1) | 5,352,350 | 593,092 | 9.7 |

## (54) Price Classification of Motor Vehicles in Use in the United States, January 1, 1918

*(Compiled by Motor List Co.)*

| List Price | Total Number Registered | Per Cent. of Total |
|---|---|---|
| Less than $500 | 2,340,549 | 46.8 |
| 500 to 749 | 556,498 | 11.1 |
| 750 to 999 | 956,244 | 19.1 |
| 1,000 to 1,249 | 308,104 | 6.1 |
| 1,250 to 1,499 | 295,459 | 5.9 |
| 1,500 to 1,999 | 186,983 | 3.7 |
| 2,000 to 2,499 | 120,972 | 2.4 |
| 2,500 to 2,999 | 108,060 | 2.1 |
| 3,000 to 3,999 | 69,691 | 1.4 |
| 4,000 and up | 62,622 | 1.2 |
| | 5,003,182 | 99.8 |

## (55) Horsepower Classification of Motor Vehicles in Use in the United States, January 1, 1918

*(Compiled by Motor List Co. from registrations in all states, including all passenger and commercial cars, but not motorcycles, of which there are about 270,000)*

| Horsepower N. A. C. C. Rating | Total Number Registered | Per Cent. of Total |
|---|---|---|
| Less than 20 | 621,908 | 12.4 |
| 20 to 25 | 3,103,314 | 62.0 |
| 25 to 30 | 939,829 | 18.8 |
| 30 to 35 | 178,284 | 3.6 |
| 35 to 40 | 54,527 | 1.1 |
| 40 and up | 105,320 | 2.1 |
| | 5,003,182 | 100.0 |

## (56) Ratio of Automobiles to Population and Highway and Railroad Mileage by States

### States with Greatest Percentage of Improved Roads

| | Mass. | Ind. | N. J. | Ohio | R. I. |
|---|---|---|---|---|---|
| Population per auto | 22 | 13 | 24 | 13 | 21 |
| Autos per mile of road | 9.45 | 3.08 | 8.07 | 4.83 | 14.09 |
| Autos per mile, improved road | 19.50 | 7.32 | 22.97 | 13.12 | 40.79 |
| Population per mile of road | 205.71 | 29.83 | 207.89 | 61.007 | 293.74 |
| Population per mile improved road | 420.75 | 223.77 | 509.15 | 168.98 | 849.88 |
| Railway miles per 100 square miles of area | 26.54 | 20.74 | 31.11 | 22.39 | 19.03 |
| Railway miles per 10,000 inhabitants | 5.76 | 26.59 | 7.98 | 17.77 | 3.33 |
| Autos per mile of railways | 82.77 | 55.83 | 55.20 | 44.77 | 150.71 |

### States with Least Percentage of Improved Roads

| | Okla. | S. D. | Iowa | Kans. | N. D. |
|---|---|---|---|---|---|
| Population per auto | 20 | 9 | 7 | 10 | 11 |
| Autos per mile of road | 1.11 | .67 | 3.14 | 1.67 | 1.05 |
| Autos per mile, improved road | 500 | 800 | 1,400 | 1,500 | 1,150 |
| Population per mile of road | 22.03 | 7.82 | 21.38 | 16.87 | 11.50 |
| Population per mile of improved road | 4,753.26 | 919.29 | 1,589.12 | 1,249.46 | 688.20 |
| Railway miles per 100 square miles of area | 9.30 | 5.57 | 17.89 | 11.43 | 7.52 |
| Railway miles per 10,000 inhabitants | 29.64 | 61.72 | 44.79 | 51.25 | 72.09 |
| Autos per mile of railways | 18.94 | 19.63 | 32.92 | 19.91 | 13.37 |

# (57) New York State Registrations by Horsepower and Registration Fees, in 1918

*(From compilation by Office of Secretary of State)*

| Passenger Cars Only Horsepower | Per Cent. of Total |
|---|---|
| Less than 25 | 63 |
| 25 to 35 | 30+ |
| 35 to 50 | 6 |
| 50 and up | Less than 1 |

Registrations in three registration districts by amount of individual fees paid, exclusive of commercial cars and 2,200 passenger cars exempt from registration.

| Registration Fee | New York | Buffalo | Albany | Total |
|---|---|---|---|---|
| $5 | 73,542 | 84,321 | 70,064 | 227,927 |
| 10 | 51,599 | 34,709 | 25,079 | 111,387 |
| 15 | 16,304 | 5,101 | 3,503 | 24,908 |
| 25 | 466 | 69 | 99 | 634 |
| | 141,911 | 124,200 | 98,745 | 364,856 |

Twenty-two counties in central and western New York State, comprising the Buffalo district, had a majority of the lower-powered cars in the State, while the New York City metropolitan district had 466 cars of 50 horsepower and over compared with 69 in the Buffalo district and 99 in the Albany zone.

# (58) New York State Registrations by Counties During 1918

*(Compiled by Office of Secretary of State)*

| COUNTIES | Pleasure | Omnibus | Commercial | Trailers | Dealers | Total cars, including exempts | Total fees on cars | Exempts | Chauffeurs | Chauffeurs' fees | Operators' fees |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bronx | 6,012 | 650 | 2,004 | 18 | 40 | 8,724 | $92,263.75 | 23 | 7,141 | $20,060.00 | $8,219.00 |
| Kings | 33,659 | 915 | 8,875 | 155 | 129 | 43,733 | 441,860.50 | 69 | 24,425 | 70,647.00 | 36,178.00 |
| New York | 43,873 | 4,224 | 17,130 | 363 | 374 | 65,964 | 842,090.00 | 861 | 44,553 | 124,858.00 | 29,316.00 |
| Queens | 12,181 | 531 | 2,750 | 74 | 84 | 15,620 | 141,060.00 | 33 | 7,258 | 20,426.00 | 12,280.00 |
| Richmond | 3,295 | 178 | 802 | 14 | 19 | 4,308 | 39,749.00 | 37 | 1,596 | 4,818.00 | 3,682.00 |
| Total New York City. | 99,020 | 6,498 | 31,561 | 624 | 646 | 138,349 | $1,557,023.25 | 1,023 | 84,973 | $240,809.00 | $89,675.00 |
| Albany | 6,265 | 248 | 1,702 | 48 | 46 | 8,309 | 76,325.75 | 219 | 1,937 | 5,641.00 | 10.00 |
| Allegany | 2,991 | 84 | 210 | 11 | 21 | 3,317 | 23,356.25 | .... | 300 | 978.00 | 109.00 |
| Broome | 5,780 | 155 | 830 | 31 | 34 | 6,830 | 53,692.00 | 23 | 1,154 | 3,415.00 | 4.00 |
| Cattaraugus | 3,912 | 110 | 594 | 22 | 21 | 4,659 | 36,165.50 | 5 | 364 | 1,058.00 | 5.00 |
| Cayuga | 4,002 | 92 | 421 | 20 | 25 | 4,560 | 33,870.50 | 14 | 520 | 1,454.00 | 3.00 |
| Chautauqua | 5,765 | 116 | 728 | 23 | 38 | 6,670 | 49,449.50 | 18 | 617 | 1,840.00 | 4.00 |
| Chemung | 3,353 | 53 | 516 | 10 | 23 | 3,955 | 31,429.00 | 12 | 585 | 1,707.00 | 1.00 |
| Chenango | 2,560 | 110 | 230 | 12 | 22 | 2,934 | 21,677.00 | 9 | 414 | 1,230.00 | 4.00 |
| Clinton | 2,230 | 187 | 219 | 3 | 16 | 2,655 | 20,068.75 | 12 | 446 | 1,312.00 | 3.00 |
| Columbia | 2,582 | 110 | 425 | 5 | 16 | 3,138 | 24,471.00 | 4 | 539 | 1,588.00 | 6.00 |
| Cortland | 2,440 | 28 | 230 | 17 | 15 | 2,730 | 20,643.00 | 1 | 285 | 837.00 | 1.00 |
| Delaware | 3,160 | 208 | 385 | 26 | 26 | 3,805 | 28,523.00 | 2 | 605 | 1,933.00 | 9.00 |
| Dutchess | 4,609 | 278 | 1,110 | 10 | 24 | 6,031 | 49,954.50 | 14 | 1,320 | 3,651.00 | 53.00 |
| Erie | 30,263 | 592 | 6,663 | 203 | 145 | 37,866 | 321,652.25 | 211 | 7,620 | 22,254.00 | 5.00 |
| Essex | 1,970 | 283 | 333 | 6 | 12 | 2,604 | 22,111.25 | 6 | 725 | 2,038.00 | .... |
| Franklin | 2,407 | 205 | 294 | 13 | 21 | 2,940 | 22,438.25 | 4 | 627 | 2,082.00 | 8.00 |
| Fulton | 2,566 | 87 | 445 | 13 | 15 | 3,126 | 24,532.00 | 9 | 500 | 1,459.00 | 4.00 |
| Genesee | 3,077 | 73 | 289 | 60 | 15 | 3,514 | 24,874.25 | 13 | 295 | 881.00 | .... |
| Greene | 1,582 | 467 | 363 | 6 | 11 | 2,429 | 22,765.50 | 1 | 764 | 2,182.00 | 19.00 |
| Hamilton | 195 | 81 | 35 | .... | 1 | 312 | 3,105.25 | 3 | 106 | 269.00 | .... |
| Herkimer | 3,454 | 152 | 372 | 18 | 17 | 4,013 | 31,814.50 | 6 | 526 | 1,490.00 | .... |
| Jefferson | 6,176 | 372 | 627 | 49 | 43 | 7,267 | 54,975.75 | 15 | 1,168 | 3,440.00 | 3.00 |
| Lewis | 1,920 | 77 | 139 | 19 | 16 | 2,171 | 15,393.75 | .... | 232 | 671.00 | 1.00 |
| Livingston | 3,426 | 108 | 319 | 7 | 25 | 3,885 | 28,272.75 | 2 | 224 | 589.00 | .... |
| Madison | 2,832 | 112 | 236 | 29 | 18 | 3,227 | 23,096.00 | 2 | 300 | 945.00 | 3.00 |
| Monroe | 18,265 | 305 | 3,178 | 95 | 66 | 21,909 | 179,038.25 | 122 | 3,492 | 10 131 00 | 7.00 |
| Montgomery | 2,558 | 85 | 419 | 22 | 15 | 3,099 | 25,515.50 | 9 | 545 | 1,552.00 | 3.00 |
| Nassau | 10,113 | 626 | 2,229 | 76 | 63 | 13,107 | 121,957.50 | 41 | 3,721 | 10,949.00 | 2,866.00 |
| Niagara | 6,752 | 146 | 1,144 | 35 | 27 | 8,104 | 65,191.50 | 34 | 847 | 2,687.00 | .... |
| Oneida | 8,869 | 199 | 1,251 | 84 | 63 | 10,466 | 82,102.50 | 20 | 1,534 | 4,433.00 | 36.00 |
| Onondaga | 12,242 | 168 | 2,066 | 109 | 71 | 14,656 | 117,035.25 | 90 | 2,270 | 6,817.00 | 4.00 |
| Ontario | 4,249 | 116 | 495 | 16 | 26 | 4,902 | 36,083.00 | 7 | 481 | 1,466.00 | .... |
| Orange | 6,140 | 380 | 1,219 | 17 | 51 | 7,807 | 62,247.25 | 15 | 1,841 | 5,239.00 | 128.00 |
| Orleans | 2,504 | 37 | 211 | 22 | 8 | 2,782 | 19,977.50 | 2 | 189 | 561.00 | .... |
| Oswego | 3,919 | 94 | 480 | 57 | 21 | 4,571 | 32,638.00 | 7 | 459 | 1,428.00 | 3.00 |
| Otsego | 3,199 | 128 | 328 | 13 | 27 | 3,695 | 26,971.00 | 3 | 507 | 1,461.00 | 2.00 |
| Putnam | 911 | 50 | 155 | 3 | 6 | 1,125 | 8,764.50 | 3 | 288 | 828.00 | 51.00 |
| Rensselear | 4,389 | 190 | 970 | 6 | 40 | 5,595 | 48,602.25 | 9 | 1,152 | 3,195.00 | 4.00 |
| Rockland | 2,386 | 173 | 471 | 10 | 19 | 3,059 | 25,557.50 | 6 | 843 | 2,262.00 | 294.00 |
| St. Lawrence | 5,646 | 334 | 397 | 37 | 40 | 6,454 | 47,387.75 | 2 | 1,045 | 3,266.00 | 1.00 |
| Saratoga | 2,420 | 229 | 481 | 8 | 16 | 3,154 | 26 805.00 | 9 | 693 | 1,995.00 | 9.00 |
| Schenectady | 4,745 | 78 | 723 | 24 | 28 | 5,598 | 45.215.50 | 20 | 836 | 2,353.00 | 5.00 |
| Schoharie | 1,448 | 111 | 170 | 2 | 10 | 1,741 | 12,807.00 | 1 | 203 | 583.00 | 2.00 |
| Schuyler | 863 | 29 | 74 | 3 | 4 | 973 | 7,084.00 | .... | 88 | 272.00 | 1.00 |
| Seneca | 1,721 | 47 | 134 | .... | 6 | 1,908 | 13 062.00 | .... | 157 | 452.00 | .... |
| Steuben | 5,188 | 138 | 426 | 19 | 31 | 5,802 | 41,064.50 | 9 | 540 | 1,626.00 | .... |
| Suffolk | 8,118 | 853 | 1,605 | 93 | 54 | 10,723 | 89,113.50 | 22 | 2,816 | 8,437.00 | 1,463.00 |
| Sullivan | 1,714 | 707 | 289 | 11 | 11 | 2,732 | 25.159.75 | .... | 1,234 | 3.908.00 | 39.00 |
| Tioga | 1,514 | 38 | 117 | 7 | 15 | 1,691 | 11.412 25 | 1 | 127 | 323.00 | 3.00 |
| Tompkins | 2,628 | 110 | 359 | 8 | 18 | 3,123 | 24.166.50 | 11 | 517 | 1,454.00 | 5.00 |
| Ulster | 3,622 | 421 | 674 | 8 | 29 | 4,754 | 39,885.50 | 5 | 1,191 | 3,453.00 | 32.00 |
| Warren | 1,421 | 191 | 264 | 8 | 13 | 1,897 | 16,804.50 | 1 | 530 | 1,561.00 | 4.00 |
| Washington | 2,350 | 121 | 241 | 4 | 19 | 2,735 | 19.795.00 | 3 | 328 | 914.00 | .... |
| Wayne | 4.099 | 55 | 425 | 34 | 18 | 4,631 | 33.867.00 | 4 | 247 | 821.00 | .... |
| Westchester | 16,560 | 814 | 3,222 | 51 | 85 | 20,732 | 186,921.00 | 109 | 6,850 | 18,947.00 | 4,616.00 |
| Wyoming | 2,498 | 85 | 156 | 10 | 16 | 2,765 | 19,235.00 | 1 | 185 | 499.00 | 1.00 |
| Yates | 1,585 | 40 | 127 | 5 | 7 | 1,764 | 12.340.00 | .... | 120 | 339.00 | .... |
| Foreign | 2.701 | 121 | 1,533 | 36 | 17 | 4,408 | 65.128.00 | 6 | 4.734 | 12.726.00 | 1,313.00 |
| | 365,874 | 18,105 | 75,309 | 2,218 | 2,252 | 463,758 | $4,210,615.75 | 2,200 | 147,756 | $422,691.00 | $100,822.00 |

| COUNTIES | Miscellaneous fees | Paid to county from automobile receipts | Paid to State | Total automobile receipts | Number of motorcycles | Motorcycle fees | Miscellaneous motorcycle fees | Paid to county, motorcycle fees | Paid to State | Total fees from motorcycles | Grand total receipts |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bronx | $5,290.00 | $58.773.86 | $67,058.89 | $125,832.75 | 1,019 | $2,455 00 | $160.50 | $1,307.73 | $1,307.77 | $2 615 50 | $128,448 25 |
| Kings | 15.312.25 | 263.786.86 | 300,210.89 | 563.997.75 | 2.879 | 7.060 00 | 485.00 | 3,770.49 | 3,774.51 | 7,545.00 | 571,542.75 |
| New York | 27,523.00 | 497.014.47 | 526,772.53 | 1,023,787.00 | 2.721 | 6.272.50 | 411.00 | 3.340 24 | 3.343 26 | 6.683.50 | 1,030,470.50 |
| Queens | 5.633.50 | 83,526.74 | 95,872.76 | 179,399.50 | 1,110 | 2,717.50 | 157.50 | 1,437 24 | 1,437 26 | 2,874.50 | 182,274.00 |
| Richmond | 1,579.50 | 23,068.24 | 26,760.26 | 49,828 50 | 317 | 770.00 | 41.50 | 405.73 | 405.77 | 811.50 | 50,640.00 |

| COUNTIES | Miscellaneous fees | Paid to county from automobile receipts | Paid to State | Total automobile receipts | Number of motorcycles | Motorcycle fees | Miscellaneous motorcycle fees | Paid to county motorcycle fees | Paid to State | Total fees from motorcycles | Grand total receipts |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total New York City. | $55,338.25 | $926,170.17 | $1,016,675.33 | 1,942,845.50 | 8,046 | $19,275.00 | $1,255.00 | $10,261.43 | $10,268.57 | $20,530.00 | $1,963,375.50 |
| Albany | 3,291.00 | 42,617.87 | 42,649.88 | 85,267.75 | 636 | 1,547.50 | 81.00 | 814.23 | 814.27 | 1,628.50 | 86,896.25 |
| Allegany | 561.00 | 12,441.62 | 12,562.63 | 25,004.25 | 118 | 295.00 | 5.00 | 150.00 | 150.00 | 300.00 | 25,304.25 |
| Broome | 1,882.00 | 29,492.99 | 29,500.01 | 58,993.00 | 574 | 1,420.00 | 27.50 | 723.74 | 723.76 | 1,447.50 | 60,440.50 |
| Cattaraugus | 726.00 | 18,964.75 | 18,989.75 | 37,954.50 | 258 | 640.00 | 21.50 | 330.74 | 330.76 | 661.50 | 38,616.00 |
| Cayuga | 720.00 | 18,020.75 | 18,026.75 | 36,047.50 | 209 | 522.50 | 9.50 | 266.00 | 266.00 | 532.00 | 36,579.50 |
| Chautauqua | 1,095.00 | 26,181.24 | 26,207.26 | 52,388.50 | 412 | 1,028.75 | 12.00 | 520.37 | 520.38 | 1,040.75 | 53,429.25 |
| Chemung | 911.50 | 17,017.75 | 17,030.75 | 34,048.50 | 368 | 916.25 | 19.50 | 467.87 | 467.88 | 935.75 | 34,984.25 |
| Chenango | 678.00 | 11,792.00 | 11,797.00 | 23,589.00 | 106 | 261.25 | 10.00 | 135.62 | 135.63 | 271.25 | 23,860.25 |
| Clinton | 595.50 | 10,978.12 | 10,992.13 | 21,979.25 | 118 | 292.50 | 11.50 | 151.99 | 152.01 | 304.00 | 22,283.25 |
| Columbia | 742.00 | 13,398.00 | 13,409.00 | 26,807.00 | 263 | 643.75 | 26.00 | 334.87 | 334.88 | 669.75 | 27,476.75 |
| Cortland | 441.00 | 10,956.50 | 10,965.50 | 21,922.00 | 203 | 507.50 | 10.50 | 258.50 | 259.50 | 518.00 | 22,440.00 |
| Delaware | 1,165.50 | 15,809.25 | 15,821.25 | 31,630.50 | 116 | 282.50 | 9.00 | 145.74 | 145.76 | 291.50 | 31,922.00 |
| Dutchess | 1,570.00 | 27,584.74 | 27,643.76 | 55,228.50 | 483 | 1,185.00 | 30.50 | 607.73 | 607.77 | 1,215.50 | 56,444.00 |
| Erie | 11,567.00 | 177,570.11 | 177,908.14 | 355,478.25 | 2,649 | 6,511.25 | 307.50 | 3,407.36 | 3,411.39 | 6,818.75 | 362,297.00 |
| Essex | 828.00 | 12,487.12 | 12,490.13 | 24,977.25 | 105 | 261.25 | 13.00 | 137.12 | 137.13 | 274.25 | 25,251.50 |
| Franklin | 697.00 | 12,607.62 | 12,617.63 | 25,225.25 | 90 | 220.00 | 12.00 | 116.00 | 116.00 | 232.00 | 25,457.25 |
| Fulton | 781.00 | 13,384.00 | 13,392.00 | 26,776.00 | 316 | 781.25 | 25.00 | 403.12 | 403.13 | 806.25 | 27,582.25 |
| Genesee | 649.50 | 13,194.37 | 13,210.38 | 26,404.75 | 247 | 601.25 | 13.00 | 307.12 | 307.13 | 614.25 | 27,019.00 |
| Greene | 1,479.00 | 13,212.75 | 13,232.75 | 26,445.50 | 72 | 176.25 | 18.00 | 97.11 | 97.14 | 194.25 | 26,639.75 |
| Hamilton | 87.00 | 1,730.62 | 1,730.63 | 3,461.25 | 3 | 7.50 | ... | 3.75 | 3.75 | 7.50 | 3,468.75 |
| Herkimer | 828.00 | 17,063.25 | 17,069.25 | 34,132.50 | 474 | 1,180.00 | 41.50 | 610.75 | 610.75 | 1,221.50 | 35,354.00 |
| Jefferson | 2,010.00 | 30,208.87 | 30,219.88 | 60,428.75 | 542 | 1,342.50 | 65.00 | 703.74 | 703.76 | 1,407.50 | 61,836.25 |
| Lewis | 531.00 | 8,296.37 | 8,300.38 | 16,596.75 | 60 | 146.25 | 10.00 | 78.12 | 78.13 | 156.25 | 16,753.00 |
| Livingston | 552.50 | 14,705.62 | 14,708.63 | 29,414.25 | 128 | 311.25 | 1.00 | 156.12 | 156.13 | 312.25 | 29,726.50 |
| Madison | 609.50 | 12,324.75 | 12,328.75 | 24,653.50 | 168 | 415.00 | 19.00 | 217.00 | 217.00 | 434.00 | 25,087.50 |
| Monroe | 4,835.00 | 96,983.12 | 97,028.13 | 194,011.25 | 2,112 | 5,208.75 | 94.50 | 2,651.11 | 2,652.14 | 5,303.25 | 199,314.50 |
| Montgomery | 576.00 | 13,821.25 | 13,825.25 | 27,646.50 | 297 | 732.50 | 18.50 | 375.50 | 375.50 | 751.00 | 28,397.50 |
| Nassau | 4,580.50 | 68,723.49 | 71,629.51 | 140,353.00 | 605 | 1,443.75 | 56.00 | 749.85 | 749.90 | 1,499.75 | 141,852.75 |
| Niagara | 1,294.50 | 34,562.50 | 34,610.50 | 69,173.00 | 501 | 1,225.00 | 26.50 | 625.74 | 625.76 | 1,251.50 | 70,424.50 |
| Oneida | 2,286.50 | 44,406.00 | 44,452.00 | 88,858.00 | 1,005 | 2,465.00 | 92.50 | 1,278.74 | 1,278.76 | 2,557.50 | 91,415.50 |
| Onondaga | 3,215.00 | 63,510.62 | 63,560.63 | 127,071.25 | 1,209 | 3,007.50 | 32.50 | 1,519.99 | 1,520.01 | 3,040.00 | 130,111.25 |
| Ontario | 834.50 | 19,187.25 | 19,196.25 | 38,383.50 | 291 | 722.50 | 12.50 | 367.50 | 367.50 | 735.00 | 39,118.50 |
| Orange | 2,116.00 | 34,798.12 | 34,932.13 | 69,730.25 | 464 | 1,135.00 | 30.00 | 582.50 | 582.50 | 1,165.00 | 70,895.25 |
| Orleans | 437.00 | 10,431.25 | 10,444.25 | 20,875.50 | 119 | 295.00 | 8.00 | 151.50 | 151.50 | 303.00 | 21,178.50 |
| Oswego | 745.00 | 17,405.00 | 17,409.00 | 34,814.00 | 243 | 605.00 | 32.50 | 318.75 | 318.75 | 637.50 | 35,451.50 |
| Otsego | 937.00 | 14,683.50 | 14,687.50 | 29,371.00 | 166 | 413.75 | 17.00 | 215.37 | 215.38 | 430.75 | 29,801.75 |
| Putnam | 425.00 | 5,007.25 | 5,061.25 | 10,068.50 | 45 | 107.50 | 3.00 | 55.25 | 55.25 | 110.50 | 10,179.00 |
| Rensselear | 1,852.00 | 26,823.12 | 26,830.13 | 53,653.25 | 336 | 830.00 | 42.00 | 435.98 | 436.02 | 872.00 | 54,525.25 |
| Rockland | 754.50 | 14,277.00 | 14,591.00 | 28,868.00 | 169 | 406.25 | 29.00 | 217.62 | 217.63 | 435.25 | 29,303.25 |
| St. Lawrence | 2,006.50 | 26,327.12 | 26,334.13 | 52,661.25 | 233 | 580.00 | 17.00 | 298.50 | 298.50 | 597.00 | 53,258.25 |
| Saratoga | 1,040.50 | 14,918.75 | 14,930.75 | 29,849.50 | 265 | 655.00 | 19.00 | 336.99 | 337.01 | 674.00 | 30,523.50 |
| Schenectady | 1,713.00 | 24,637.75 | 24,648.75 | 49,286.50 | 729 | 1,781.25 | 109.00 | 945.12 | 945.13 | 1,890.25 | 51,176.75 |
| Schoharie | 801.00 | 7,144.00 | 7,149.00 | 14,293.00 | 47 | 117.50 | 10.00 | 63.75 | 63.75 | 127.50 | 14,420.50 |
| Schuyler | 137.00 | 3,745.50 | 3,748.50 | 7,494.00 | 36 | 90.00 | 4.50 | 47.25 | 47.25 | 94.50 | 7,588.50 |
| Seneca | 273.50 | 6,892.25 | 6,895.25 | 13,787.50 | 73 | 182.50 | 5.00 | 93.75 | 93.75 | 187.50 | 13,975.00 |
| Steuben | 966.00 | 21,816.74 | 21,839.76 | 43,656.50 | 377 | 937.50 | 18.50 | 477.98 | 478.02 | 956.00 | 44,612.50 |
| Suffolk | 3,607.75 | 50,565.62 | 52,055.63 | 102,621.25 | 526 | 1,278.75 | 26.50 | 652.61 | 652.64 | 1,305.25 | 103,926.50 |
| Sullivan | 1,770.00 | 15,413.87 | 15,462.88 | 30,876.75 | 68 | 168.75 | 3.50 | 86.12 | 86.13 | 172.25 | 31,049.00 |
| Tioga | 328.50 | 6,028.87 | 6,037.88 | 12,066.75 | 108 | 270.00 | 3.00 | 136.50 | 136.50 | 273.00 | 12,339.75 |
| Tompkins | 517.50 | 13,063.00 | 13,080.00 | 26,143.00 | 143 | 357.50 | 5.50 | 181.50 | 181.50 | 363.00 | 26,506.00 |
| Ulster | 1,894.50 | 22,615.49 | 22,649.51 | 45,265.00 | 290 | 713.75 | 25.00 | 369.36 | 369.39 | 738.75 | 46,003.75 |
| Warren | 506.00 | 9,434.25 | 9,441.25 | 18,875.50 | 78 | 193.75 | 12.50 | 103.12 | 103.13 | 206.25 | 19,081.75 |
| Washington | 534.50 | 10,621.75 | 10,621.75 | 21,243.50 | 130 | 321.25 | 14.50 | 167.86 | 167.89 | 335.75 | 21,579.25 |
| Wayne | 698.00 | 17,686.50 | 17,699.50 | 35,386.00 | 185 | 458.75 | 13.50 | 236.12 | 236.13 | 472.25 | 35,858.25 |
| Westchester | 4,498.00 | 105,151.00 | 109,831.00 | 214,982.00 | 793 | 1,885.00 | 65.00 | 974.99 | 975.01 | 1,950.00 | 216,932.00 |
| Wyoming | 453.00 | 10,087.50 | 10,100.50 | 20,188.00 | 71 | 177.50 | 1.00 | 89.25 | 89.25 | 178.50 | 20,366.50 |
| Yates | 314.00 | 6,493.50 | 6,499.50 | 12,993.00 | 51 | 127.50 | 3.00 | 65.25 | 65.25 | 130.50 | 13,123.50 |
| Foreign | 1,149.50 | .... | 80,316.50 | 80,316.50 | 68 | 158.75 | 7.50 | .... | 166.25 | 166.25 | 80,482.75 |
| | $138,433.50 | $2,345,483.13 | $2,527,079.12 | $4,872,562.25 | 28,597 | $69,823.75 | $2,911.50 | $36,277.56 | $36,457.69 | $72,735.25 | $4,945,297.50 |

# EXPORT

## (59) Automobile Markets of the World

*(Compiled by the Foreign Trade Department of the National Association of Manufacturers)*

In the third column is given an estimate of the number of automobiles in use throughout the world at the beginning of 1917. In the last column the endeavor has been to indicate what reasonbly may be considered the potential market or automobile buying possibilities of all countries under normal commercial conditions, or conditions prevailing before the greatwar. As far as practicable the figures have been confined to passenger cars.

The column headed "Full parity with U. S. A." gives the number that would be in use in the given country were there in the United States a car to every 30 of population.

In the effort to arrive at the potential purchasing capacity of a given country, absolutely arbitrary ratios have been used, based on a number of factors: The physical nautre, hazardous and the phvsical development of the country and the social development of the people.

### North America

| Country | Population | Estimated number of cars Jan. 1, 1917 | Full parity with U. S. A. | Potential market |
|---|---|---|---|---|
| British: | | | | |
| Bermudas | 21.000 | .... | 713 | 100 |
| Canada | 8,500,000 | 118,000 | 290,000 | 200,000 |
| Newfoundland | 52,000 | 86 | 1,800 | 300 |
| Danish: | | | | |
| Greenland | 85.000 | .... | 2,900 | 25 |
| Mexico | 15.502.000 | 4,500 | 527,000 | 25,000 |
| United States | 103,000,000 | 3,500,000 | 3,500,000 | ? |

| Country | Population | Estimated number of cars Jan. 1, 1917 | Full parity with U. S. A. | Potential market |
|---|---|---|---|---|
| **Central America** | | | | |
| British Honduras | 41.000 | 13 | 1.400 | 35 |
| Costa Rica | 420 000 | 150 | 14.000 | 1,000 |
| Guatemala | 2,119,165 | 250 | 72 000 | 2,000 |
| Honduras | 566.017 | 80 | 20.000 | 200 |
| Nicaragua | 600 000 | 20 | 20,000 | 100 |
| Panama | 341 090 | 106 | 11.600 | 350 |
| Panama Canal Zone | 62 000 | 500 | 2.100 | 500 |
| Salvador | 1.226.000 | 125 | 42,000 | 600 |
| **South America** | | | | |
| Argentina | 9.000 000 | 21,000 | 306 000 | 100,000 |
| Bolivia | 2 267 935 | 95 | 80.000 | 500 |
| Brazil | 24,000,000 | 11,000 | 816,000 | 100,000 |
| British: | | | | |
| Guiana | 309 938 | 178 | 10.500 | 500 |
| Chile | 3 600 000 | 2,600 | 122 000 | 12,000 |
| Colombia | 5,472,604 | 600 | 186,000 | 6,000 |
| Dutch: | | | | |
| Guiana (Surinam) | 86 000 | 50 | 3 000 | 100 |
| Ecuador | 1,500,000 | 250 | 51,000 | 800 |
| French: | | | | |
| Guiana | 50 000 | 15 | 1.600 | 50 |
| Paraguay | 850 000 | 35 | 29,000 | 1,000 |
| Peru | 4.500 000 | 500 | 153.000 | 3.000 |
| Uruguay | 1 400.000 | 1.565 | 48.000 | 12 000 |
| Venezuela | 2,764,241 | 1,300 | 94,000 | 4,000 |

| Country | Population | Estimated number of cars Jan. 1, 1917 | Full parity with U. S. A. | Potential market |
|---|---|---|---|---|
| **West Indies** | | | | |
| American: | | | | |
| Porto Rico | 1,185,000 | 2,362 | 40,000 | 6,000 |
| British: | | | | |
| Barbados | 176,000 | 125 | 6,000 | 500 |
| Jamaica | 883,000 | 800 | 30,000 | 2,000 |
| Trinidad | 358,000 | 325 | 12,000 | 1,000 |
| Other | 359,000 | 175 | 12,000 | 500 |
| Cuba | 2,467,883 | 7,000 | 84,000 | 15,000 |
| Dominican Republic | 710,000 | 200 | 24,000 | 1,000 |
| Dutch: | | | | |
| Curacao | 33,400 | 100 | 11,000 | 200 |
| French | 412,700 | 250 | 14,000 | 500 |
| Haiti | 2,000,000 | 57 | 68,000 | 500 |
| | EUROPE * | | | |
| Austria-Hungary | 49,882,331 | 16,356 | 1,695,000 | 120,000 |
| Azores—Madeira Islands | 412,390 | 100 | 14,000 | 200 |
| Belgium | 7,571,387 | 14,708 | 277,000 | 50,000 |
| Bulgaria | 4,752,997 | 1,000 | 162,000 | 6,000 |
| Denmark | 2,775,075 | 4,000 | 94,000 | 13,000 |
| Iceland | 85,188 | 10 | 2,900 | 100 |
| France | 39,601,509 | 96,434 | 1,346,000 | 450,000 |
| Germany | 64,925,993 | 75,839 | 2,206,000 | 600,000 |
| Gibraltar and Malta | 246,570 | 45 | 8,400 | 60 |
| Greece | 4,821,300 | 500 | 164,000 | 2,500 |
| Italy | 36,120,118 | 22,531 | 1,228,000 | 100,000 |
| Netherlands, The | 6,339,705 | 7,000 | 215,000 | 30,000 |
| Norway | 2,391,782 | 1,484 | 81,000 | 3,000 |
| Portugal | 5,545,595 | 2,888 | 188,000 | 9,000 |
| Rumania | 7,508,009 | 500 | 255,000 | 10,000 |
| Russia (in Europe) | 146,686,600 | 27,913 | 5,000,000 | 250,000 |
| Serbia | 1,503,511 | .... | 51,000 | 1,000 |
| Spain | 19,556,384 | 6,000 | 665,000 | 35,000 |
| Sweden | 5,679,607 | 5,000 | 193,000 | 15,000 |
| Switzerland | 3,877,210 | 5,000 | 132,000 | 12,000 |
| Turkey (in Europe) | 1,891,000 | 250 | 64,000 | 2,000 |
| United Kingdom | 45,370,530 | 150,000 | 1,542,000 | 700,000 |

* In the belligerent countries of Europe it is fair to assume that the number of pleasure or passenger cars in use would have been much larger than appear in the table had peace prevailed. In the United Kingdom at least one hundred thousand more cars were registered a year or more ago than are given in the table and the numbers given for several other countries are probably much higher than the number actually now used for private or pleasure purposes.

| Country | Population | Estimated number of cars Jan. 1, 1917 | Full parity with U. S. A. | Potential market |
|---|---|---|---|---|
| **Asia** | | | | |
| Afghanistan | 6,000,000 | .... | 204,000 | 500 |
| Bhutan | 250,000 | .... | 8,500 | 25 |
| British Possessions and Protectorates: | | | | |
| Aden and Dependencies | 58,000 | .... | 2,000 | 100 |
| Borneo (British North) | 280,000 | 12 | 9,500 | 100 |
| British India and Dependencies: | | | | |
| British Provinces | 245,069,542 | 9,000 | 8,328,000 | 150,000 |
| Native States and Agencies | 71,000,000 | .... | 2,300,000 | 40,000 |
| Baluchistan | 835,000 | .... | 2,000 | 1,000 |
| Federated Malay States | 1,036,000 | | 35,000 | 1,500 |
| Malay Protected States | 900,000 | 2,000 | 31,000 | 500 |
| Straits Settlement, The | 779,977 | | 27,000 | 2,000 |
| Ceylon | 4,261,000 | 2,200 | 145,000 | 7,000 |
| Cyprus | 274,000 | 10 | 9,300 | 500 |
| China | 320,650,000 | 1,200 | 10,896,000 | 25,000 |
| Dutch East Indies | 38,000,000 | 8,200 | 1,300,000 | 35,000 |
| French Indo-China | 17,000,000 | 500 | 578,000 | 10,000 |
| Hongkong and Kowloon | 457,000 | 120 | 16,000 | 1,000 |
| Japan | 53,700,000 | 1,800 | 1,825,000 | 15,000 |
| Chosen (Korea) | 15,509,000 | 85 | 527,000 | 1,500 |
| Taiwan (Formosa) | 3,600,000 | .... | 122,000 | 250 |
| Nepal | 5,000,000 | .... | 170,000 | 500 |
| Persia | 9,500,000 | .... | 323,000 | 6,000 |
| Russia Asia: | | | | |
| Siberia and Steppes | 14,000,000 | | 478,000 | 30,000 |
| Trans-Caucasia | 7,500,000 | | 255,000 | 20,000 |
| Other | 7,540,000 | 1,000 | 256,000 | 5,000 |
| Bokhara | 1,250,000 | | 42,000 | 800 |
| Khiva | 646,000 | | 22,000 | 600 |
| Siam | 8,200,000 | 1,531 | 277,000 | 7,000 |
| Turkey in Asia: | | | | |
| Arabia (excepting Aden) | 1,050,000 | | 38,000 | 500 |
| Armenia and Kurdistan | 2,470,000 | | 84,000 | 300 |
| Asia Minor | 10,200,000 | 100 | 347,000 | 7,000 |
| Mesopotamia | 2,000,000 | | 68,000 | 1,000 |
| Syria | 3,675,000 | | 125,000 | 3,000 |

| Country | Population | Estimated number of cars Jan. 1, 1917 | Full parity with U. S. A. | Potential market |
|---|---|---|---|---|
| **Africa** | | | | |
| Abyssinia | 10,000,000 | 10 | 340,000 | 100 |
| Belgian Kongo | 15,000,000 | 100 | 510,000 | 1,000 |
| British: | | | | |
| East Africa | 10,125,200 | 600 | 344,000 | 5,000 |
| West Africa | 20,053,656 | 200 | 681,000 | 5,000 |
| Egypt | 12,566,000 | 800 | 40,000 | 4,000 |
| Mauritius | 377,000 | 538 | 13,000 | 1,000 |
| Somaliland Protectorate | 300,000 | .... | 10,200 | 50 |
| South Africa (Rhodesia, etc.) | 2,304,350 | 350 | 78,000 | 10,000 |
| Union of South Africa | 5,973,000 | 14,000 | 202,000 | 50,000 |
| French: | | | | |
| Algeria | 5,070,000 | 4,811 | 172,000 | 10,000 |
| Kongo | 9,000,000 | .... | 306,000 | 1,000 |
| West Africa | 10,710,000 | 102 | 364,000 | 1,000 |
| Madagascar | 3,258,000 | .... | 111,000 | 500 |
| Somali Coast | 210,000 | .... | 7,200 | 50 |
| Tunis | 1,800,000 | 300 | 61,200 | 2,000 |
| German: | | | | |
| East Africa | 7,700,000 | 50 | 262,000 | 3,000 |
| Kamerun | 2,540,000 | 10 | 86,000 | 1,000 |
| Togoland | 1,032,000 | .... | 35,000 | 500 |
| Southwest Africa | 95,000 | .... | 3,200 | 100 |
| Italian: | | | | |
| Eritrea | 450,000 | 4 | 15,300 | 100 |
| Somaliland | 400,000 | .... | 13,600 | 25 |
| Tripoli, etc. | 530,000 | 1,500 | 18,000 | 2,000 |
| Morocco | 5,000,000 | 623 | 170,000 | 2,500 |
| Portuguese | 8,207,000 | 50 | 279,000 | 500 |
| Spanish | 705,768 | 130 | 24,000 | 250 |
| **Australasia and Oceania** | | | | |
| American Possessions: | | | | |
| Hawaii | 215,741 | 4,640 | 7,300 | 10,000 |
| Philippine Islands | 8,834,187 | 3,700 | 300,000 | 8,000 |
| British Possessions: | | | | |
| Commonwealth of Australia | 5,149,000 | 32,000 | 175,000 | 175,000 |
| New Zealand | 1,162,000 | 15,000 | 39,000 | 45,000 |

### Summary by Principal Geographical Divisions

| Division | Cars in use Jan. 1, 1917 | Full parity with U. S. A. | Potential market outside U. S. A. |
|---|---|---|---|
| United States | 3,500,000 | 3,500,000 | ? |
| Canada and other North America | 118,086 | 295,413 | 200,425 |
| Mexico and Central America | 5,744 | 710,100 | 29,785 |
| South America | 39,188 | 1,900,100 | 239,950 |
| West Indies | 11,394 | 301,000 | 27,200 |
| Europe | 437,558 | 15,583,300 | 2,408,860 |
| Asia | 27,758 | 28,876,300 | 372,675 |
| Africa | 24,178 | 4,513,700 | 100,675 |
| Australasia and Oceania | 55,340 | 521,300 | 238,000 |
| Total | 4,219,246 | 56,201,213 | 3,617,570 |

NOTE—Blank spaces opposite countries in the column for cars in use do not necessarily indicate that no cars were used there, but that no data was available on which to make a fair estimate.

## (60) Exports of Motor Vehicles During Last Six Fiscal Years

### (Ended June 30, each year)

| Fiscal Year | Commercial Cars Number | Value | Per cent. Increase (in value) | Passenger Cars Number | Value | Per cent. increase (in value) |
|---|---|---|---|---|---|---|
| 1913 | 993 | $1,737,141 | ..... | 24,293 | $24,275,793 | ..... |
| 1914 | 784 | 1,181,611 | *31.4 | 28,306 | 25,392,963 | 4.6 |
| 1915 | 13,996 | 39,140,682 | 3,211.6 | 23,880 | 21,113,953 | *16.8 |
| 1916 | 21,268 | 56,805,548 | 45.1 | 56,234 | 40,660,263 | 92.5 |
| 1917 | 15,977 | 42,343,502 | *25.4 | 64,808 | 48,612,632 | 19.8 |
| 1918 | 12,200 | 31,874,459 | *24.7 | 52,312 | 45,331,366 | *6.7 |
| | 65,218 | $173,082,943 | | 249,832 | $205,386,980 | |

* Decrease.

## Volume and Percentage of Exports in 1918

**By Empires and Grand Divisions**

| | Commercial | | Passenger | |
|---|---|---|---|---|
| | Value | Per Cent. of Total | Value | Per Cent. of Total |
| Great Britain and Colonies | $9,232,273 | 34.2 | $14,485,113 | 39.5 |
| France and Possessions | 12,966,571 | 48.0 | 1,307,886 | 3.5 |
| North America, Canada, Newfoundland and Mexico | 2,565,746 | 9.5 | 8,778,529 | 23.8 |
| Europe | 20,324,176 | 75.3 | 4,196,831 | 11.2 |
| Asia | 1,490,541 | 6.2 | 5,766,752 | 15.4 |
| Oceania, including Australia and New Zealand | 412,636 | 1.5 | 5,997,634 | 16.3 |
| Africa | 87,742 | 0.3 | 1,316,646 | 3.6 |
| South America | 657,434 | 2.4 | 6,819,688 | 18.6 |
| West Indies | 1,207,329 | 4.4 | 3,155,124 | 8.6 |
| Central America, exclusive of Mexico | 72,248 | 0.3 | 247,107 | 0.6 |
| U. S. Territories (Alaska, Hawaii and Porto Rico) | 150,886 | 0.5 | 379,129 | 1.0 |

Great Britain and France and their Colonies and Possessions are included in the grand geographical divisions.

## (62) Shipments of Military Cars and Trucks

Exports of trucks (almost all for Government use) to England, France and Russia from July 1, 1914, to December 31, 1918 ..... 55,893

Overseas shipments of trucks to American Expeditionary Force from April, 1917, to December 31, 1918..... 54,343

Overseas shipments of passenger cars to American Expeditionary Force from April, 1917, to December 31, 1918 ..... 7,904

## (63) General Export Information

| | |
|---|---|
| Number of automobiles and trucks exported during twelve years from 1907 to 1918..... | 364,057 |
| Valuation of above (wholesale) ..... | $437,468,693 |
| Number of trucks exported in six years from 1913 to 1918 ..... | 65,215 |
| Valuation of above (wholesale) ..... | $173,082,943 |
| Per cent. of passenger automobiles produced in 1918 exported, exclusive of A. E. F. shipments | 4% |
| Per cent. of passenger automobiles produced in 1914 exported ..... | 4.4% |
| Per cent. of trucks produced in 1918 exported, exclusive of A. E. F. shipments..... | 4% |
| Per cent. of trucks produced in 1917 and 1918 shipped to A. E. F. ..... | 15.2% |
| Per cent. of trucks produced in 1914 exported.. | 3% |
| Duty on foreign automobiles imported into the United States, complete vehicles valued at $2,000 or more ..... | 45% ad valorem |
| Duty on complete vehicles costing less than $2,000 ..... | 30% ad valorem |
| Duty on all chassis and finished parts, not including tires ..... | 30% ad valorem |
| Duty on all automobile bodies imported separately ..... | 45% ad valorem |

# (64) Number of Passenger Cars Exported Annually

*(Figures from Bureau of Foreign and Domestic Commerce)*

| Exported to | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | Last Half 1918 |
|---|---|---|---|---|---|---|---|
| Europe: | | | | | | | |
| Austria-Hungary | 134 | 314 | 4 | ..... | ..... | ..... | ..... |
| Azores and Madeira Is. | 16 | 20 | 18 | 6 | 1 | ..... | ..... |
| Belgium | 94 | 244 | 12 | ..... | ..... | ..... | ..... |
| Bulgaria | 17 | 43 | ..... | ..... | ..... | ..... | ..... |
| Denmark | 81 | 263 | 219 | 806 | 1,215 | 2 | 96 |
| Finland | 51 | 106 | 17 | ..... | ..... | ..... | ..... |
| France | 818 | 1,427 | 451 | 2,087 | 1,367 | 1,169 | 495 |
| Germany | 845 | 1,411 | 16 | ..... | ..... | ..... | ..... |
| Gibralter | 7 | 64 | 9 | 15 | 9 | ..... | ..... |
| Greece | 5 | 25 | 36 | 124 | 78 | 4 | ..... |
| Iceland and Faroe Is. | 2 | 5 | 3 | ..... | 11 | 15 | 25 |
| Italy | 331 | 342 | 114 | 382 | 186 | 129 | 21 |
| Malto, Gozo, etc. | ..... | 1 | ..... | ..... | ..... | ..... | ..... |
| Netherlands | 111 | 141 | 96 | 439 | 485 | ..... | ..... |
| Norway | 78 | 145 | 125 | 732 | 922 | 97 | 187 |
| Portugal | 73 | 59 | 14 | 204 | 283 | 223 | 26 |
| Roumania | 38 | 28 | ..... | 2 | ..... | ..... | ..... |
| Russia in Europe | 580 | 926 | 907 | 1,268 | 780 | 492 | 6 |
| Serbia, Montenegro, etc. | 2 | 4 | 2 | 3 | ..... | ..... | ..... |
| Spain | 186 | 83 | 71 | 364 | 1,125 | 1,205 | 459 |
| Sweden | 256 | 324 | 137 | 238 | 390 | 95 | 1 |
| Switzerland | 22 | 79 | 2 | 6 | 9 | 3 | 1 |
| Turkey in Europe | 13 | 35 | ..... | ..... | ..... | ..... | ..... |
| United Kingdom: | | | | | | | |
| England | 3,783 | 6,992 | 8,321 | 9,810 | 1,268 | 742 | 88 |
| Scotland | 6 | 25 | 143 | 158 | 4 | 150 | ..... |
| Ireland | 6 | 2 | 159 | 60 | ..... | ..... | ..... |
| North America: | | | | | | | |
| British Honduras | 1 | 4 | 1 | ..... | 12 | 8 | 6 |
| Canada | 6,723 | 4,377 | 4,127 | 10,017 | 14,421 | 12,985 | 1,625 |
| Central American States: | | | | | | | |
| Costa Rica | 13 | 20 | 9 | 60 | 37 | 199 | ..... |
| Guatemala | 10 | 26 | 10 | 24 | 35 | 34 | 2 |
| Honduras | 4 | 4 | 31 | 34 | 42 | 16 | 6 |
| Nicaragua | ..... | ..... | ..... | 6 | 5 | 49 | 28 |
| Panama | 39 | 58 | 110 | 228 | 356 | 129 | 13 |
| Salvador | 11 | 10 | 16 | 68 | 75 | 54 | 32 |
| Mexico | 235 | 155 | 70 | 383 | 2,807 | 2,578 | 770 |
| Newfou'dl'd & Labrador | 9 | 5 | 17 | 21 | 48 | 27 | 68 |
| West Indies: | | | | | | | |
| British— | | | | | | | |
| Barbados | 7 | 14 | 19 | 63 | 121 | 58 | 4 |
| Jamaica | 62 | 66 | 80 | 273 | 335 | 236 | 43 |
| Trinidad and Tobago | 43 | 47 | 59 | 128 | 204 | 161 | 19 |
| Other British | 7 | 13 | 38 | 100 | 124 | 80 | 24 |
| Cuba | 223 | 297 | 1,359 | 3,698 | 3,529 | 2,975 | 871 |
| Danish | 4 | 3 | 3 | 9 | 18 | 23 | 13 |
| Dominican Republic | 7 | 11 | 28 | 131 | 191 | 248 | 99 |
| Dutch | 19 | 13 | 24 | 21 | 32 | 12 | 2 |
| French | 5 | 65 | 54 | 101 | 293 | 248 | 25 |
| Haiti | 38 | 2 | ..... | 10 | 29 | 102 | 22 |

| Exported to | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | Last Half 1918 |
|---|---|---|---|---|---|---|---|
| **South America:** | | | | | | | |
| Argentina | 1,062 | 940 | 626 | 4,399 | 3,924 | 3,525 | 559 |
| Bolivia | 2 | 4 | 10 | 26 | 141 | 152 | 4 |
| Brazil | 987 | 299 | 81 | 272 | 873 | 1,575 | 442 |
| Chile | 78 | 195 | 120 | 826 | 2,587 | 3,399 | 673 |
| Colombia | 110 | 79 | 39 | 91 | 173 | 164 | 30 |
| Ecuador | 74 | 21 | 20 | 62 | 137 | 142 | 22 |
| Guiana: | | | | | | | |
| British | 18 | 16 | 45 | 73 | 146 | 180 | 18 |
| Dutch | ..... | 7 | 9 | 15 | 23 | 16 | .... |
| French | 1 | ..... | ..... | 1 | 1 | 8 | 1 |
| Paraguay | ..... | ..... | 5 | 6 | 40 | 13 | ..... |
| Peru | 70 | 36 | 24 | 59 | 400 | 784 | 257 |
| Uruguay | 209 | 183 | 45 | 285 | 1,165 | 2,232 | 418 |
| Venezuela | 104 | 126 | 227 | 518 | 542 | 160 | 38 |
| **Asia:** | | | | | | | |
| Aden | 15 | 28 | 9 | 16 | 10 | 8 | ..... |
| China | 89 | 144 | 122 | 264 | 509 | 833 | 409 |
| China, leased territory: | | | | | | | |
| British | ..... | ..... | ..... | ..... | ..... | 6 | ..... |
| French | ..... | ..... | ..... | ..... | 20 | 2 | ..... |
| Japanese | ..... | ..... | ..... | ..... | 33 | 10 | 38 |
| Chosen | 7 | 2 | 2 | 7 | 5 | 2 | 3 |
| East Indies: | | | | | | | |
| British— | | | | | | | |
| Britith India | 439 | 437 | 315 | 2,289 | 3,603 | 73 | 27 |
| Straits Settlements | 387 | 262 | 77 | 376 | 855 | 287 | 49 |
| Other British | 39 | 82 | 25 | 239 | 110 | 11 | ..... |
| Dutch | 278 | 290 | 105 | 1,064 | 3,206 | 1,272 | 1,078 |
| French | ..... | ..... | ..... | 8 | 18 | 18 | 12 |
| Hongkong | 7 | 11 | 2 | 15 | 38 | 117 | 86 |
| Japan | 312 | 96 | 28 | 153 | 652 | 2,139 | 1,514 |
| Persia | ..... | ..... | ..... | ..... | ..... | 2 | 8 |
| Russia in Asia | 1 | 12 | 551 | 683 | 1,072 | 5 | 3 |
| Siam | 56 | 37 | 13 | 41 | 31 | 65 | 27 |
| Turkey in Asia | 1 | 7 | 1 | ..... | ..... | ..... | 6 |
| **Oceania:** | | | | | | | |
| British— | | | | | | | |
| Australia | 2,083 | 3,099 | 2,169 | 5,335 | 5,055 | 4,307 | 1,582 |
| New Zealand | 958 | 1,065 | 938 | 2,672 | 3,554 | 1,818 | 639 |
| Other British | 3 | 9 | 2 | 28 | 19 | 30 | 7 |
| French | 11 | 46 | 8 | 92 | 22 | 12 | 3 |
| German | 1 | ..... | 1 | 7 | 12 | 12 | 7 |
| Philippine Islands | 517 | 614 | 407 | 861 | 1,019 | 1,714 | 603 |
| **Africa:** | | | | | | | |
| British Africa— | | | | | | | |
| West | 4 | 32 | 42 | 63 | 240 | 202 | 43 |
| South | 1,279 | 1,618 | 695 | 2,859 | 3,423 | 2,142 | 541 |
| East | 14 | 49 | 120 | 237 | 94 | 112 | 14 |
| Canary Islands | 10 | 15 | 27 | 51 | 31 | 15 | ..... |
| Egypt | 16 | 22 | 1 | 25 | 38 | 21 | 6 |
| French Africa | 10 | 19 | ..... | 2 | 41 | 121 | 89 |
| German Africa | 5 | 19 | 7 | 20 | ..... | ..... | ..... |
| Italian Africa | ..... | ..... | ..... | ..... | 3 | ..... | ..... |
| Liberia | 1 | ..... | ..... | ..... | 1 | 12 | ..... |
| Madagascar | ..... | ..... | ..... | 7 | 1 | 2 | ..... |
| Morocco | ..... | 63 | 25 | 52 | 87 | 35 | ..... |
| Portuguese Africa | 20 | 24 | 6 | 56 | 7 | 9 | 12 |
| Total | 24,293 | 28,306 | 23,880 | 56,234 | 64,808 | 52,312 | 14,345 |
| **Recapitulation** | | | | | | | |
| Europe | 7,555 | 13,108 | 10,876 | 16,704 | 8,133 | 4,326 | 1,405 |
| North America | 7,460 | 5,190 | 6,055 | 15,375 | 22,714 | 20,222 | 3,672 |
| South America | 2,715 | 1,906 | 1,251 | 6,633 | 10,152 | 12,350 | 2,462 |
| Asia | 1,631 | 1,408 | 1,250 | 5,155 | 10,162 | 4,850 | 3,260 |
| Oceania | 3,573 | 4,833 | 3,525 | 8,995 | 9,681 | 7,893 | 2,841 |
| Africa | 1,359 | 1,861 | 923 | 3,372 | 3,966 | 2,671 | 705 |

## (65) Value of Passenger Cars Exported Annually

*(Figures from Bureau of Foreign and Domestic Commerce)*

| Exported to | 1913 Dollars | 1914 Dollars | 1915 Dollars | 1916 Dollars | 1917 Dollars | Dollars | Last Half 1919 Dollars |
|---|---|---|---|---|---|---|---|
| **Europe:** | | | | | | | |
| Austria-Hungary | 91,781 | 190,199 | 2,310 | ..... | ..... | ..... | ..... |
| Azores and Madeira Is. | 10,549 | 10,771 | 10,119 | 2,272 | 700 | ..... | ..... |
| Belgium | 85,679 | 139,681 | 15,191 | ..... | ..... | ..... | ..... |
| Bulgaria | 11,457 | 21,679 | ..... | ..... | ..... | ..... | ..... |
| Denmark | 77,149 | 176,947 | 156,296 | 548,971 | 932,768 | 4,100 | 155,416 |
| Finland | 53,568 | 83,835 | 9,163 | ..... | ..... | ..... | ..... |
| France | 615,086 | 919,060 | 252,909 | 1,428,325 | 836,557 | 1,518,858 | 331,144 |
| Germany | 764,389 | 1,040,787 | 17,364 | ..... | ..... | ..... | ..... |
| Gibralter | 6,576 | 33,030 | 6,077 | 16,165 | 11,518 | ..... | ..... |
| Greece | 4,080 | 28,256 | 28,431 | 118,398 | 79,913 | 6,580 | ..... |
| Iceland and Faroe Is. | 1,016 | 2,488 | 2,128 | ..... | 5,134 | 11,396 | 22,666 |
| Italy | 280,961 | 241,466 | 70,265 | 217,240 | 126,432 | 78,228 | 32,345 |
| Malta, Gozo, etc. | ..... | 422 | ..... | ..... | ..... | ..... | ..... |
| Netherlands | 94,163 | 117,131 | 131,801 | 399,017 | 612,495 | ..... | ..... |

| Exported to | 1913 Dollars | 1914 Dollars | 1915 Dollars | 1916 Dollars | 1917 Dollars | 1918 Dollars | Last Half 1918 Dollars |
|---|---|---|---|---|---|---|---|
| Norway | 66,689 | 118,338 | 89,357 | 592,560 | 944,002 | 115,810 | 398,266 |
| Portugal | 58,931 | 65,545 | 18,255 | 198,975 | 271,421 | 270,987 | 38,228 |
| Roumania | 30,337 | 17,018 | ..... | 3,000 | ..... | ..... | ..... |
| Russia in Europe | 484,913 | 898,458 | 1,527,768 | 3,142,616 | 943,003 | 1,136,400 | 6,605 |
| Serbia, Montenegro, etc. | 1,160 | 2,843 | 2,950 | 4,200 | ..... | ..... | ..... |
| Spain | 127,621 | 64,758 | 59,555 | 299,367 | 1,195,887 | 1,346,826 | 610,844 |
| Sweden | 235,918 | 253,588 | 108,652 | 180,869 | 360,554 | 111,377 | 2,800 |
| Switzerland | 24,965 | 56,838 | 1,244 | 4,499 | 9,248 | 1,533 | 1,646 |
| Turkey in Europe | 9,814 | 21,052 | ..... | ..... | ..... | ..... | ..... |
| United Kingdom: | | | | | | | |
| England | 2,893,785 | 5,615,487 | 6,849,145 | 6,933,806 | 1,444,346 | 1,712,672 | 134,102 |
| Scotland | 8,104 | 46,948 | 82,708 | 124,138 | 2,991 | 217,000 | ..... |
| Ireland | 5,538 | 1,593 | 157,091 | 55,014 | ..... | ..... | ..... |
| North America | | | | | | | |
| British Honduras | 1,800 | 3,929 | 550 | ..... | 5,774 | 6,858 | 4,650 |
| Canada | 8,229,324 | 5,445,052 | 3,723,125 | 6,555,334 | 11,143,740 | 10,189,865 | 1,461,776 |
| Central American States: | | | | | | | |
| Costa Rica | 14,955 | 17,877 | 3,897 | 28,325 | 23,125 | 85,070 | ..... |
| Guatemala | 14,892 | 36,763 | 12,012 | 23,552 | 36,174 | 46,657 | 1,815 |
| Honduras | 8,100 | 3,286 | 20,422 | 22,652 | 24,564 | 12,292 | 11,093 |
| Nicaragua | ..... | ..... | ..... | 3,109 | 2,120 | 32,031 | 28,991 |
| Panama | 43,432 | 51,906 | 85,990 | 170,964 | 216,711 | 93,329 | 13,864 |
| Salvador | 13,212 | 13,323 | 8,888 | 54,598 | 62,314 | 68,297 | 36,884 |
| Mexico | 423,123 | 239,166 | 66,830 | 309,200 | 1,642,011 | 1,653,545 | 793,614 |
| Newfou'dl'd & Labrador | 10,353 | 2,761 | 11,681 | 15,632 | 38,910 | 34,676 | 72,887 |
| West Indies: | | | | | | | |
| British— | | | | | | | |
| Barbados | 5,973 | 12,320 | 8,699 | 30,688 | 62,364 | 33,198 | 3,300 |
| Jamaica | 59,131 | 61,475 | 61,622 | 205,239 | 202,375 | 149,673 | 39,701 |
| Trinidad and Tobago | 39,902 | 49,079 | 40,281 | 87,167 | 112,014 | 100,571 | 18,474 |
| Other British | 6,716 | 11,061 | 18,463 | 51,612 | 80,879 | 50,009 | 15,603 |
| Cuba | 242,686 | 254,428 | 745,695 | 2,091,295 | 2,545,071 | 3,029,813 | 1,295,485 |
| Danish | 2,131 | 2,954 | 1,375 | 3,426 | 9,114 | 12,313 | 9,194 |
| Dominican Republic | 5,382 | 15,195 | 14,609 | 60,127 | 96,173 | 157,607 | 87,290 |
| Dutch | 14,590 | 9,605 | 16,829 | 10,945 | 19,191 | 7,435 | 1,295 |
| French | 3,877 | 48,377 | 34,906 | 63,670 | 154,990 | 146,698 | 21,561 |
| Haiti | 24,499 | 1,485 | ..... | 3,788 | 13,780 | 54,613 | 18,408 |
| South America: | | | | | | | |
| Argentina | 1,181,735 | 963,586 | 294,129 | 2,065,439 | 2,336,001 | 2,666,898 | 708,853 |
| Bolivia | 1,493 | 12,764 | 5,462 | 16,208 | 100,151 | 105,408 | 8,548 |
| Brazil | 1,035,247 | 264,992 | 52,939 | 157,968 | 523,383 | 1,000,011 | 424,317 |
| Chile | 109,982 | 160,194 | 64,327 | 530,211 | 1,821,842 | 3,576,511 | 1,009,964 |
| Colombia | 113,334 | 69,620 | 34,956 | 58,525 | 118,937 | 121,422 | 27,542 |
| Ecuador | 55,372 | 21,229 | 11,233 | 44,396 | 106,478 | 130,086 | 29,471 |
| Guiana: | | | | | | | |
| British | 14,313 | 11,364 | 24,311 | 33,933 | 65,989 | 100,546 | 18,472 |
| Dutch | ..... | 3,948 | 4,492 | 7,181 | 11,797 | 17,775 | ..... |
| French | 558 | ..... | ..... | 1,000 | 498 | 3,632 | 318 |
| Paraguay | ..... | ..... | 2,308 | 2,256 | 20,192 | 5,025 | ..... |
| Peru | 55,646 | 31,362 | 20,658 | 40,388 | 295,558 | 913,669 | 395,753 |
| Uruguay | 273,253 | 167,269 | 25,706 | 150,540 | 612,838 | 1,177,463 | 307,221 |
| Venezuela | 109,499 | 102,073 | 143,086 | 314,156 | 327,507 | 97,485 | 56,021 |
| Asia: | | | | | | | |
| Aden | 7,998 | 20,990 | 6,706 | 9,166 | 7,968 | 6,879 | ..... |
| China | 90,459 | 143,619 | 119,635 | 191,932 | 383,371 | 818,659 | 402,275 |
| China, leased territory: | | | | | | | |
| British | ..... | ..... | ..... | ..... | ..... | 3,000 | ..... |
| French | ..... | ..... | ..... | ..... | 9,325 | 2,017 | ..... |
| Japanese | ..... | ..... | ..... | ..... | 17,796 | 7,321 | 29,335 |
| Chosen | 6,095 | 1,795 | 1,800 | 4,780 | 3,832 | 1,300 | 2,295 |
| East Indies: | | | | | | | |
| British— | | | | | | | |
| British India | 355,573 | 379,954 | 274,680 | 1,638,262 | 2,644 085 | 53,428 | 42,756 |
| Straits Settlements | 319,247 | 216,659 | 70,210 | 239,715 | 585.820 | 202,221 | 53,934 |
| Other British | 31,245 | 73,175 | 20,208 | 168,685 | 80,033 | 17,740 | ..... |
| Dutch | 198,378 | 208,722 | 87,306 | 753,128 | 2,642,330 | 1,302,800 | 1,359,811 |
| French | ..... | ..... | ..... | 3,033 | 17,967 | 21,175 | 18,069 |
| Hongkong | 6,673 | 13,043 | 1,475 | 10,858 | 35,255 | 91.228 | 86,006 |
| Japan | 364,507 | 100,995 | 29,210 | 120,061 | 481,748 | 2,040,897 | 1,608,516 |
| Persia | ..... | ..... | ..... | ..... | ..... | 1,048 | 4,625 |
| Russia in Asia | 1,160 | 14,998 | 1,477,809 | 529,385 | 1,324,060 | 8,425 | 11,734 |
| Siam | 35,934 | 26,219 | 10,317 | 32,082 | 15,915 | 60,220 | 22,005 |
| Turkey in Asia | 824 | 5,662 | 1,000 | ..... | ..... | ..... | 3,965 |
| Oceania: | | | | | | | |
| British— | | | | | | | |
| Australia | 1,896,990 | 2,615,896 | 1,768,479 | 4,147,302 | 3,792,571 | 3,410.557 | 1,492,899 |
| New Zealand | 990,837 | 974,708 | 784.206 | 2,055,843 | 2,558,118 | 1,453.311 | 607,807 |
| Other British | 2,396 | 6,014 | 2,081 | 18,227 | 11,062 | 20,863 | 5,955 |
| French | 14,005 | 45,184 | 7,482 | 56,789 | 12.330 | 7,612 | 3,368 |
| German | 350 | ..... | 5,000 | 3,208 | 5.847 | 11.029 | 4,935 |
| Philippine Islands | 577,040 | 697,175 | 425,001 | 859,450 | 686,731 | 1,373,204 | 616,437 |
| Africa: | | | | | | | |
| British Africa— | | | | | | | |
| West | 2,688 | 18,319 | 20,899 | 35,361 | 144.838 | 115,772 | 37,351 |
| South | 1,157 895 | 1,437.883 | 731 278 | 2,040 977 | 2,378.380 | 1,706.136 | 530,951 |
| East | 12,802 | 34,430 | 75,188 | 137,245 | 55,681 | 75,778 | 14,445 |

| Exported to | 1913 Dollars | 1914 Dollars | 1915 Dollars | 1916 Dollars | 1917 Dollars | 1918 Dollars | Last Half 1918 Dollars |
|---|---|---|---|---|---|---|---|
| Canary Islands | 6,426 | 6,956 | 12,015 | 32,935 | 24,525 | 5,378 | ..... |
| Egypt | 10,156 | 11,437 | 695 | 18,352 | 22,113 | 17,300 | 20,850 |
| French Africa | 7,297 | 17,273 | ..... | 1,155 | 13,315 | 50,550 | 52,757 |
| German Africa | 3,175 | 14,136 | 4,865 | 7,760 | ..... | ..... | ..... |
| Italian Africa | ..... | ..... | ..... | ..... | 1,200 | ..... | ..... |
| Liberia | 805 | ..... | ..... | ..... | 975 | 4,220 | ..... |
| Madagascar | ..... | ..... | ..... | 2,532 | 808 | 1,659 | ..... |
| Morocco | ..... | 29,497 | 10,847 | 20,574 | 39,670 | 17,718 | ..... |
| Portuguese Africa | 16,102 | 21,563 | 7,301 | 38,510 | 5,429 | 9,673 | 8,598 |
| Total | 24,275,793 | 25,392,963 | 21,113,953 | 40,660,263 | 48,612,632 | 45,331,366 | 15,698,106 |
| Recapitulation | | | | | | | |
| Europe | 6,044,229 | 10,168,218 | 9,598,779 | 14,269,432 | 7,776,969 | 6,531,767 | 1,734,062 |
| North America | 9,164,078 | 6,280,042 | 4,875,874 | 9,791,323 | 16,491,394 | 15,964,550 | 3,935,885 |
| South America | 2,950,432 | 1,808,401 | 683,607 | 3,422,201 | 6,341,171 | 9,915,931 | 2,986,480 |
| Asia | 1,418,090 | 1,205,831 | 2,100,356 | 3,701,087 | 8,249,505 | 4,638,358 | 3,645,326 |
| Oceania | 3,481,618 | 4,338,977 | 2,992,249 | 7,140,819 | 7,066,659 | 6,276,576 | 2,731,401 |
| Africa | 1,217,346 | 1,591,494 | 863,088 | 2,335,401 | 2,686,934 | 2,004,184 | 664,952 |

## (66) Number of Motor Trucks Exported Annually

*(Figures from Bureau of Foreign and Domestic Commerce)*

| Exported to | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | Last Half 1918 |
|---|---|---|---|---|---|---|---|
| Europe: | | | | | | | |
| Austria-Hungary | 2 | 3 | .... | .... | .... | .... | .... |
| Belgium | .... | .... | 100 | .... | .... | .... | .... |
| Bulgaria | 2 | .... | .... | .... | .... | .... | .... |
| Denmark | 3 | .... | 44 | 41 | 5 | 2 | .... |
| France | 6 | 2 | 4,990 | 5,681 | 4,264 | 2,754 | 2,025 |
| Germany | 4 | 24 | 4 | .... | .... | .... | .... |
| Gibraltar | .... | .... | .... | .... | .... | 27 | .... |
| Greece | 1 | 1 | 142 | 45 | 3 | 14 | .... |
| Iceland & Faroe Islands | .... | .... | .... | .... | .... | 1 | .... |
| Italy | .... | 1 | 1 | 5 | 65 | 52 | 26 |
| Netherlands | 2 | 1 | 9 | 50 | 36 | .... | .... |
| Norway | 2 | 2 | 3 | 81 | 162 | 40 | 83 |
| Portugal | 1 | 8 | 5 | 295 | 21 | 12 | 10 |
| Roumania | 12 | .... | .... | .... | .... | .... | .... |
| Russia in Europe | 13 | 2 | 2,251 | 3,909 | 1,73. | 406 | .... |
| Serbia, Montenegro, etc. | .... | .... | 10 | 20 | .... | .... | .... |
| Spain | 1 | .... | 1 | 30 | 29 | 46 | 33 |
| Sweden | .... | 1 | 10 | 19 | 6 | 7 | .... |
| Turkey in Europe | .... | 1 | 2 | .... | .... | .... | .... |
| United Kingdom: | | | | | | | |
| England | 184 | 203 | 5,306 | 8,268 | 6,525 | 4,805 | 830 |
| Scotland | .... | .... | 4 | 224 | .... | 447 | .... |
| Ireland | .... | .... | 1 | 8 | .... | .... | 2 |
| North America: | | | | | | | |
| British Honduras | .... | .... | .... | .... | .... | 2 | 1 |
| Canada | 489 | 247 | 306 | 387 | 636 | 1,108 | 895 |
| Central America States: | | | | | | | |
| Costa Rica | 2 | 8 | 2 | .... | 1 | 5 | .... |
| Guatemala | .... | .... | .... | 2 | 4 | 3 | .... |
| Honduras | 1 | .... | 6 | 6 | 4 | 6 | .... |
| Nicaragua | .... | .... | .... | 1 | .... | 1 | 2 |
| Panama | .... | 5 | 6 | 32 | 75 | 47 | 16 |
| Salvador | .... | .... | .... | 1 | 1 | 4 | 1 |
| Mexico | 35 | 12 | 8 | 51 | 218 | 365 | 201 |
| Newf'l'd and Labrador | 4 | 1 | 1 | 1 | 1 | 2 | 5 |
| West Indies: | | | | | | | |
| British— | | | | | | | |
| Barbados | .... | .... | .... | .... | | 2 | 5 |
| Jamaica | 4 | 3 | 3 | 9 | 6 | 10 | 2 |
| Trinidad and Tobago | .... | 1 | .... | 2 | 2 | 14 | 7 |
| Other British | .... | .... | .... | 6 | 1 | 28 | 4 |
| Cuba | 14 | 19 | 21 | 117 | 397 | 554 | 279 |
| Danish | 1 | .... | .... | .... | .... | 2 | .... |
| Dominican Republic | 1 | 1 | 2 | 4 | 22 | 21 | 8 |
| Dutch | .... | 1 | 1 | .... | 2 | .... | .... |
| French | .... | .... | 2 | 1 | 7 | 26 | 2 |
| Haiti | 3 | .... | .... | .... | 2 | 11 | 2 |
| South America: | | | | | | | |
| Argentina | 35 | 48 | 3 | 45 | 141 | 51 | 3 |
| Bolivia | .... | .... | .... | .... | 20 | 14 | 12 |
| Brazil | 36 | 13 | 3 | 11 | 14 | 24 | 21 |
| Chile | .... | 2 | .... | 17 | 69 | 220 | 85 |
| Colombia | 3 | .... | 1 | 4 | 2 | 3 | 2 |
| Ecuador | 1 | .... | .... | 2 | 1 | 3 | 4 |
| Guiana: | | | | | | | |
| British | .... | .... | 1 | .... | 1 | 7 | 1 |
| Dutch | .... | .... | .... | 1 | .... | .... | 1 |
| Peru | .... | 3 | 2 | 5 | 25 | 73 | 52 |
| Uruguay | 7 | 1 | .... | 2 | 4 | 16 | 2 |
| Venezuela | 23 | 12 | 3 | 6 | 14 | 16 | 2 |

| Exported to | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | Last Half 1918 |
|---|---|---|---|---|---|---|---|
| Asia: | | | | | | | |
| China | .... | 7 | .... | 39 | 9 | 23 | 31 |
| China, leased territory: | | | | | | | |
| French | .... | .... | 1 | .... | ... | .... | 2 |
| Chosen | 1 | .... | .... | 3 | .... | 2 | .... |
| East Indies: | | | | | | | |
| British: | | | | | | | |
| British India | .... | 7 | 7 | 135 | 126 | 11 | 1 |
| Straits Settlements | 2 | 7 | .... | 17 | 57 | 70 | 44 |
| Other British | .... | .... | 1 | 20 | 26 | 3 | .... |
| Dutch | 2 | 7 | 11 | 58 | 108 | 68 | 139 |
| French | .... | .... | .... | .... | .... | 2 | 1 |
| Hongkong | .... | .... | 1 | 3 | .... | 8 | 8 |
| Japan | 21 | 1 | 1 | 15 | 70 | 279 | 381 |
| Persia | .... | .... | .... | .... | .... | 4 | .... |
| Russia in Asia | .... | .... | 596 | 1,170 | 515 | .... | 15 |
| Siam | .... | .... | .... | 9 | 8 | 6 | 2 |
| Turkey inAsia | .... | 1 | 5 | .... | 2 | .... | .... |
| Oceania: | | | | | | | |
| British | | | | | | | |
| Australia | 17 | 32 | 57 | 201 | 194 | 109 | 15 |
| New Zealand | 1 | 39 | 20 | 93 | 75 | 74 | 52 |
| Other British | .... | .... | .... | 2 | 1 | 2 | .... |
| French | 2 | 4 | .... | 1 | 2 | 5 | 1 |
| German | .... | .... | .... | 1 | 3 | 4 | 2 |
| Philippine Islands | 43 | 38 | 27 | 58 | 53 | 163 | 32 |
| Africa: | | | | | | | |
| British Africa: | | | | | | | |
| West | .... | 1 | .... | 7 | 115 | 27 | 13 |
| South | 11 | 12 | 15 | 36 | 34 | 70 | 23 |
| East | .... | .... | .... | .... | .... | 1 | .... |
| Canary Islands | .... | 1 | .... | .... | 1 | .... | .... |
| Egypt | .... | .... | .... | .... | 4 | .... | .... |
| French Africa | 1 | .... | .... | .... | .... | 18 | 11 |
| Morocco | .... | .... | .... | 7 | .... | .... | .... |
| Portuguese Africa | .... | 1 | .... | 1 | 1 | .... | 4 |
| Total | 993 | 784 | 13,996 | 21,265 | 15,977 | 12,200 | 5,401 |
| Recapituation | | | | | | | |
| Europe | 233 | 249 | 12,883 | 18,676 | 12,902 | 8,613 | 3,009 |
| North America | 554 | 298 | 358 | 620 | 1,380 | 2,211 | 1,430 |
| South America | 105 | 79 | 13 | 93 | 291 | 427 | 185 |
| Asia | 26 | 30 | 623 | 1,469 | 921 | 476 | 624 |
| Oceania | 63 | 113 | 104 | 356 | 328 | 357 | 102 |
| Africa | 12 | 15 | 15 | 51 | 155 | 116 | 51 |

## (67) Value of Motor Trucks Exported Annually

*(Figures from Bureau of Foreign and Domestic Commerce)*

| Exported to | 1913 Dollars | 1914 Dollars | 1915 Dollars | 1916 Dollars | 1917 Dollars | 1918 Dollars | last half 1918 Dollars |
|---|---|---|---|---|---|---|---|
| Europe: | | | | | | | |
| Austria-Hungary | 3,595 | 7,455 | .... | .... | .... | .... | .... |
| Belgium | .... | .... | 365,000 | .... | .... | .... | .... |
| Bulgaria | 1,528 | .... | .... | .... | .... | .... | .... |
| Denmark | 2,120 | .... | 25,033 | 36,413 | 81,414 | 3,800 | .... |
| France | 10,709 | 5,070 | 13,523,843 | 17,709,579 | 13,854,903 | 10,001,626 | 8,011,335 |
| Germany | 4,029 | 18,462 | 2,800 | .... | .... | .... | .... |
| Gibraltar | .... | .... | .... | .... | .... | 58,325 | .... |
| Greece | 1,176 | 1,800 | 426,570 | 98,815 | 2,000 | 32,000 | .... |
| Iceland & Faroe Islands | .... | .... | .... | .... | .... | 2,245 | .... |
| Italy | .... | 1,229 | 8,000 | 14,655 | 159,775 | 28,055 | 87,577 |
| Netherlands | 4,489 | 1,452 | 19,069 | 93,797 | 55,305 | .... | .... |
| Norway | 2,200 | 3,852 | 4,689 | 121,480 | 266,741 | 133,227 | 212,574 |
| Portugal | 1,400 | 12,075 | 10,291 | 1,117,681 | 45,087 | 36,914 | 42,300 |
| Roumania | 12,000 | .... | .... | .... | .... | .... | .... |
| Russia in Europe | 34,163 | 5,322 | 7,666,883 | 12,544,258 | 5,428,979 | 1,562,303 | .... |
| Serbia, Montenegro, etc. | .... | .... | 6,300 | 65,000 | .... | .... | .... |
| Spain | 1,400 | .... | 1,800 | 57,277 | 55,808 | 97,910 | 87,180 |
| Sweden | .... | 900 | 17,600 | 29,050 | 10,879 | 10,360 | .... |
| Turkey in Europe | .... | 2,000 | 8,009 | .... | .... | .... | .... |
| United Kingdom: | | | | | | | |
| England | 119,468 | 189,099 | 14,042,325 | 18,723,403 | 17,061,105 | 13,438,981 | 2,456,993 |
| Scotland | .... | .... | 11,250 | 271,745 | .... | 1,203,328 | .... |
| Ireland | .... | .... | 7,033 | 39,776 | .... | .... | 4,276 |
| North America: | | | | | | | |
| British Honduras | .... | .... | .... | .... | .... | 3,700 | 834 |
| Canada | 1,004,237 | 474,724 | 705,213 | 724,817 | 945,047 | 1,381,542 | 1,192,833 |
| Central America States: | | | | | | | |
| Costa Rica | 3,643 | 10,571 | 4,165 | .... | 900 | 10,245 | .... |
| Guatemala | .... | .... | .... | 4,916 | 4,323 | 5,512 | .... |
| Honduras | 3,000 | .... | 12,500 | 14,540 | 4,094 | 3,373 | .... |
| Nicaragua | .... | .... | .... | 2,500 | .... | 2,509 | 5,742 |
| Panama | .... | 7,243 | 12,010 | 55,171 | 97,970 | 47,859 | 20,504 |
| Salvador | .... | .... | .... | 1,300 | 868 | 14,811 | 175 |
| Mexico | 83,363 | 17,509 | 14,492 | 100,500 | 198,151 | 525,664 | 260,968 |
| Newf'l'd and Labrador | 8,845 | 1,221 | 750 | 1,692 | 2,675 | 7,250 | 2,997 |

| Exported to | 1913 Dollars | 1914 Dollars | 1915 Dollars | 1916 Dollars | 1917 Dollars | 1918 Dollars | Last Half Dollars |
|---|---|---|---|---|---|---|---|
| Asia: | | | | | | | |
| West Indies: | | | | | | | |
| British— | | | | | | | |
| Barbados | .... | .... | .... | .... | 1,506 | 3,400 | 11,792 |
| Jamaica | 9,234 | 9,250 | 7,292 | 18,524 | 8,285 | 6,775 | 800 |
| Trinidad and Tobago | .... | 2,000 | .... | 1,974 | 5,722 | 18,361 | 15,089 |
| Other British | .... | .... | .... | 11,327 | 500 | 89,914 | 3,304 |
| Cuba | 23,639 | 33,500 | 34,607 | 176,647 | 722,519 | 1,130,982 | 539,070 |
| Danish | 4,250 | .... | .... | .... | .... | 2,845 | .... |
| Dominican Republic | 1,858 | 1,800 | 3,372 | 5,173 | 23,640 | 13,323 | 11,597 |
| Dutch | .... | 595 | 1,463 | .... | 2,095 | .... | .... |
| French | .... | .... | 3,975 | 2,310 | 13,305 | 49,626 | 3,650 |
| Haiti | 5,553 | .... | .... | .... | 1,324 | 10,578 | 1,200 |
| South America: | | | | | | | |
| Argentina | 78,000 | 65,225 | 2,910 | 33,063 | 146,255 | 50,124 | 4,094 |
| Bolivia | .... | .... | .... | .... | 48,590 | 24,958 | 38,716 |
| Brazil | 75,073 | 20,449 | 2,861 | 19,635 | 8,300 | 31,133 | 19,167 |
| Chile | .... | 10,743 | .... | 46,566 | 160,696 | 282,638 | 136,376 |
| Colombia | 6,112 | .... | 1,237 | 1,236 | 4,998 | 7,100 | 3,285 |
| Ecuador | 2,017 | .... | .... | 3,378 | 2,050 | 6,876 | 6,520 |
| Guiana: | | | | | | | |
| British | .... | .... | 900 | .... | 1,520 | 5,100 | 2,600 |
| Dutch | .... | .... | .... | 1,037 | .... | .... | 1,000 |
| Peru | .... | 5,301 | 3,484 | 5,830 | 48,776 | 155,834 | 139,295 |
| Uruguay | 19,280 | 865 | .... | 5,818 | 10,437 | 15,809 | 2,000 |
| Venezuela | 34,291 | 28,228 | 7,164 | 13,029 | 28,502 | 12,410 | 2,200 |
| China | .... | 12,700 | .... | 89,799 | 14,287 | 26,236 | 46,595 |
| China, leased territory: | | | | | | | |
| French | .... | .... | 2,451 | .... | .... | .... | 5,490 |
| Chosen | 3,500 | .... | .... | 5,027 | .... | 1,629 | .... |
| East Indies: | | | | | | | |
| British | | | | | | | |
| British India | .... | 12,091 | 8,680 | 208,067 | 205,023 | 20,275 | 2,118 |
| Straits Settlements | 5,588 | 14,381 | .... | 25,169 | 61,881 | 113,554 | 64,425 |
| Other British | .... | .... | 3,300 | 27,841 | 38,970 | 7,138 | .... |
| Dutch | 4,840 | 14,232 | 9,567 | 82,586 | 137,609 | 162,749 | 313,725 |
| French | .... | .... | .... | .... | .... | 3,500 | 1,800 |
| Hongkong | .... | .... | 780 | 6,304 | .... | 5,371 | 10,500 |
| Japan | 32,770 | 900 | 3,382 | 14,528 | 59,198 | 317,787 | 636,692 |
| Persia | .... | .... | .... | .... | .... | 2,712 | .... |
| Russia in Asia | .... | .... | 1,903,221 | 3,546,435 | 1,662,144 | .... | 18,200 |
| Siam | .... | .... | .... | 7,036 | 6,700 | 4,535 | 4,867 |
| Turkey in Asia | .... | 1,354 | 26,282 | .... | 1,143 | .... | .... |
| Oceania: | | | | | | | |
| British: | | | | | | | |
| Australia | 23,027 | 37,378 | 84,142 | 295,538 | 237,159 | 163,405 | 26,274 |
| New Zealand | 1,201 | 61,599 | 31,575 | 149,848 | 119,833 | 145,764 | 59,690 |
| Other British | .... | .... | .... | 2,612 | 1,688 | 2,404 | .... |
| French | 3,400 | 7,625 | .... | 860 | 2,750 | 6,480 | 1,000 |
| German | .... | .... | .... | 1,530 | 2,377 | 5,518 | 2,213 |
| Philippine Islands | 91,809 | 64,805 | 62,132 | 88,286 | 57,457 | 215,106 | 56,815 |
| Africa: | | | | | | | |
| British Africa: | | | | | | | |
| West | .... | 1,260 | .... | 13,173 | 124,574 | 20,136 | 15,097 |
| South | 9,476 | 11,539 | 40,280 | 54,519 | 82,957 | 107,085 | 26,750 |
| East | .... | .... | .... | .... | .... | 787 | .... |
| Canary Islands | .... | 1,203 | .... | .... | 575 | .... | .... |
| Egypt | .... | .... | .... | .... | 9,624 | .... | .... |
| French Africa | 858 | .... | .... | .... | .... | 12,963 | 9,217 |
| Morocco | .... | .... | .... | 9,675 | .... | .... | .... |
| Portuguese Africa | .... | 2,604 | .... | 2,803 | 2,500 | .... | 7,725 |
| Total | 1,737,141 | 1,181,611 | 39,140,682 | 56,805,548 | 42,343,502 | 31,874,459 | 14,637,236 |
| Recapituation | | | | | | | |
| Europe | 198,277 | 248,716 | 36,146,495 | 50,922,929 | 37,021,996 | 26,609,074 | 10,902,235 |
| North America | 1,147,622 | 558,413 | 799,839 | 1,121,391 | 2,032,924 | 3,328,269 | 2,070,555 |
| South America | 214,773 | 130,811 | 18,556 | 129,592 | 460,133 | 591,982 | 355,253 |
| Asia | 46,698 | 55,658 | 1,957,663 | 4,012,792 | 2,186,955 | 665,486 | 1,104,412 |
| Oceania | 119,437 | 171,407 | 177,849 | 538,674 | 421,264 | 538,677 | 145,992 |
| Africa | 10,334 | 16,606 | 40,280 | 80,170 | 220,230 | 140,971 | 58,789 |

(68)

# Value of Automobile Parts Exported Annually

**(Not Including Engines and Tires)**

*(Figures from Bureau of Foreign and Domestic Commerce)*

| Exported to | 1913 Dollars | 1914 Dollars | 1915 Dollars | 1916 Dollars | 1917 Dollars | 1918 Dollars | Last Half 1918 Dollars |
|---|---|---|---|---|---|---|---|
| Europe | 1,272,881 | 1,830,560 | 4,051,730 | 12,381,657 | 12,117,721 | 10,974,888 | .... |
| North America | 3,259,830 | 3,847,616 | 2,989,180 | 8,144,091 | 10,489,084 | 13,933,706 | .... |
| South America | 275,295 | 296,306 | 166,226 | 469,309 | 2,160,830 | 4,556,551 | .... |
| Asia | 105,132 | 144,017 | 227,905 | 538,140 | 974,831 | 1,007,440 | .... |
| Oceania | 260,779 | 334,956 | 293,888 | 637,761 | 1,165,703 | 1,558,764 | .... |
| Africa | 66,682 | 170,777 | 124,254 | 365,527 | 512,744 | 901,657 | .... |
| Total | 5,240,599 | 6,624,232 | 7,853,183 | 22,536,485 | 27,420,913 | 32,933,006 | 17,344,624 |

# (69) Value of Automobile Engines Exported Annually

*(Figures from Bureau of Foreign and Domestic Commerce)*

| Exported to | 1913 Dollars | 1914 Dollars | 1915 Dollars | 1916 Dollars | 1917 Dollars | 1918 Dollars | Last Half 1918 Dollars |
|---|---|---|---|---|---|---|---|
| Europe | 971,758 | 1,310,951 | 1,323,144 | 1,519,200 | 992,321 | 641,992 | .... |
| North America | 755,180 | 71,837 | 72,232 | 1,102,618 | 1,809,343 | 2,751,671 | .... |
| South America | 230 | 1,140 | 2,084 | 4,781 | 1,062 | 722,172 | .... |
| Asia | 372 | 2,431 | 345 | 267 | 1,664 | 2,075 | .... |
| Oceania | 1,056 | 4,983 | 3,955 | 3,536 | 7,521 | 7,639 | .... |
| Africa | .... | 551 | 574 | 1,012 | 6,010 | 1,708 | .... |
| Total | 1,728,596 | 1,391,893 | 1,402,334 | 2,631,414 | 2,817,921 | 4,127,257 | 2,302,303 |

# (70) Value of Automobile Tires Exported Annually

*(Figures from Bureau of Foreign and Domestic Commerce)*

| Exported to | 1913 Dollars | 1914 Dollars | 1915 Dollars | 1916 Dollars | 1917 Dollars | 1918 Dollars | Last Half 1918 Dollars |
|---|---|---|---|---|---|---|---|
| Europe | 1,977,029 | 1,764,240 | 2,745,450 | 10,992,184 | 3,480,114 | 1,460,518 | .... |
| North America | 1,626,155 | 1,254,200 | 1,187,632 | 2,184,874 | 3,186,265 | 4,474,713 | .... |
| South America | 100 065 | 115,387 | 214,068 | 1,050,398 | 2,596,936 | 3,432,181 | .... |
| Asia | 36,212 | 64,173 | 73,430 | 477,895 | 810,300 | 1,194,551 | .... |
| Oceania | 185,807 | 279,327 | 702,877 | 2,896,401 | 1,832,244 | 2,662,422 | .... |
| Africa | 17 952 | 27.940 | 39,813 | 334.475 | 424,342 | 753,286 | .... |
| Total | 3,943,220 | 3,505,267 | 4,963,270 | 17,936,227 | 12,330,201 | 13,977,671 | 8,259,914 |

## (71) Shipment of Automobiles to Non-Contiguous Territories

*(Figures from Bureau of Foreign and Domestic Commerce)*

| | Fiscal Years 1916 | | 1917 | | 1918 | | Last Half 1918 | |
|---|---|---|---|---|---|---|---|---|
| | No. | Dollars | No. | Dollars | No. | Dollars | No. | Dollars |
| Alaska | 114 | 102,426 | 152 | 141,128 | 96 | 86,771 | 15 | 23,059 |
| Hawaii | 1,903 | 1,900,926 | 1,891 | 1,802,413 | 1,554 | 1,507,498 | 119 | 183,994 |
| Porto Rico | 1,152 | 789,057 | 1,289 | 1,181,353 | 1,106 | 1,146,533 | 208 | 322,962 |

## (72) Swiss Automobile Statistics

*(From Federal Statistical Bureau, Berne, Switzerland)*

Number and Countries of Origin of Automobiles and Motor Trucks in Switzerland:

| | AUTOMOBILES | | MOTOR TRUCKS | |
|---|---|---|---|---|
| | April 30, 1913 | Dec. 31, 1917 | April 30, 1913 | Dec. 31, 1917 |
| Swiss | 1,629 | 1,653 | 531 | 912 |
| German | 476 | 762 | 54 | 71 |
| French | 1,561 | 1,517 | 90 | 70 |
| Belgian | 100 | 178 | 3 | 5 |
| Italian | 282 | 486 | 5 | 35 |
| American | 62 | 305 | 3 | 7 |
| Undetermined | 555 | 175 | 65 | 16 |
| Total | 4,665 | 5,076 | 751 | 1,216 |

## (73) Automobiles Owned in Europe

*(From Statistics Compiled by the Fiat Press Bureau, Italy)*

| Country | Number of cars | Year | Population | Number of inhabitants per car |
|---|---|---|---|---|
| Great Britain | 171,607 | 1917 | 46,087,000 | 268.5 |
| France | 98,400 | 1916 | 39,600,000 | 402 |
| Germany | 95,000 | 1914 | 65,000,000 | 684 |
| Italy | 35,500 | 1918 | 35,584,000 | 1,002 |
| Russia | 27,900 | 1916 | 148,289,000 | 531.5 |
| Austria | 19,300 | 1916 | 52,608,000 | 2,671.7 |
| Belgium | 12,700 | 1916 | 7,580,000 | 515.6 |
| Spain | 10,253 | 1918 | 20,400,000 | 1,989.6 |
| Holland | 10,000 | 1917 | 6,583,226 | 658 |
| Sweden | 9,000 | 1916 | 5,638,500 | 658 |
| Denmark | 8,500 | 1917 | 2,019,000 | 343 |
| Switzerland | 6,157 | 1914 | 3,765,000 | 611 |
| Portugal | 3,211 | 1917 | 5,433.000 | 1,692 |
| Norway | 3,067 | 1918 | 2 240,000 | 730 |
| Bulgaria | 3,050 | 1916 | 4.330,000 | 1,419.5 |
| Rumania | 2,500 | 1913 | 7.248,061 | 2,889 |
| Finland | 2,000 | 1917 | 3,600,000 | 1,800 |
| Greece | 800 | 1917 | 3,912,000 | 4,890 |
| Turkey | 500 | 1913 | .... | .... |
| Monaco | 230 | 1916 | 22,000 | 95.6 |
| Malta | 100 | 1917 | 224.000 | 2,240 |
| Gibraltar | 45 | 1917 | 18,500 | 411 |
| Cyprus | 15 | 1917 | 273.857 | 18,257 |
| Rhodes Is. | 14 | 1917 | 30.000 | 2,142.8 |
| Crete | 13 | 1917 | 365,000 | 121,666.6 |

# IMPORTS

## (74) Imports of Motor Vehicles (Passenger and Commercial Cars Combined)

| Fiscal Year | Number | Value |
|---|---|---|
| 1908 | 1,045 | $2,500,314 |
| 1909 | 1.624 | 2,905,391 |
| 1910 | 1,473 | 2,851,446 |
| 1911 | 888 | 1,898,843 |
| 1912 | 963 | 2,134,181 |
| 1913 | 748 | 1.759,380 |
| 1914 | 300 | $620,493 |
| 1915 | 322 | 525,303 |
| 1916 | 1.474 | 801.911 |
| 1917 | 105 | 188.280 |
| 1918 | 50 | 52,578 |
| Total | 8,992 | $16,238,120 |

## (75) Eleven Years' Imports of Motor Vehicles from Principal Countries

*(Fiscal Years 1908 to 1918, inclusive)*

| Imported from | Number | Value |
|---|---|---|
| France | 3,975 | $8,240,638 |
| Italy | 1,358 | 2,330,888 |
| England | 856 | 2,126,875 |
| Germany | 625 | 1,554,466 |
| Canada | 1.673 | 1,117,737 |
| Belgium | 128 | 295,100 |
| Switzerland | 119 | 267,182 |
| Austria-Hungary | 24 | 50,844 |

# Index

*(By item numbers—not by pages)*


Accessory makers in U. S. 2
Annual average cost of horses on farms 47
Army, purchases of automotive equipment 16, 17, 20
Automobile exports from U. S. 4, 60, 61, 63, 64, 65, 66, 67
Automobile industry, census of 6
Automobile industry, effect of war on 16
Automobile industry, Canadian, statistics of 30
Automobile markets of the world 59
Automobile registrations in New York State 58
Automobile trade by classes and states 15
Automobiles exported to non-contiguous territories 71
Automobiles in use in the world 59
Automobiles owned in Europe 73
Automobiles to population, by states 56
Automotive equipment produced for Army 20
Body makers in U. S. 2
Business, statistics of automobile dealers 29
Canada, number of cars used in 5
Canadian automobile industry statistics 30
Capacity analysis of truck production in U. S. 26, 27
Capital invested in automobile industry of U. S. 1, 2, 6, 9
Capital invested in Canadian automobile industry 30
Capital invested in motor car manufacture in U. S. 1
Capital invested by body, parts and accessory makers in U. S. 2
Car owners, occupational analysis of 35
Cars in North and South America 52
Cars in use in U. S. 52
Charging stations in states 15
Classification of motor vehicles by price, in U. S. 54
Classification of motor vehicles by horsepower, in U. S. 55
Comparative cost of horse and motor truck haulage 44
Consumption of crude rubber in U. S. 32
Consumption of gasoline in U. S. 31
Cost, annual average, of horses on farms 47
Cost of four horses and a wagon 44
Cost of hauling by motor truck and wagon 44
Cost of horse a trip 44
Cost of truck a mile 44
Cost of truck a trip 44
Crude oil production in U. S. 31
Crude rubber consumption in U. S. 32
Dairymen's use of trucks 48, 49, 50
Dealers, automobile, statistics of business 29
Dealers, motor car in U. S. 3, 15
Defunct manufacturers of motor cars in U. S. 14
Distribution of automotive manufacturers by states 13
Duty on foreign automobiles imported into U. S. 63
Employees in automobile industry of U. S. 2, 6, 8
Employees of body, parts and accessory makers in U. S. 2
Employees of Canadian automobile industry 30
Employees of motor car manufacturers in U. S. 1
Engines, value of, exported from U. S. 69
Europe, automobiles owned in 5, 73
Export information, general 63
Exports, automobile, from U. S. 4
Exports, automobile, to non-contiguous territories 71
Exports of automobile engines from U. S. 69
Exports of automobile parts from U. S. 68
Exports of automobile tires from U. S. 70
Exports of military cars and trucks 62
Exports, motor truck from U. S. 60, 61, 63, 66, 67
Exports, motor vehicles and parts, from Canada 30
Exports of motor vehicles from U. S. 60
Exports of passenger cars, value of, from U. S. 65
Exports, passenger car, from U. S. 60, 61, 63, 64, 65
Exports of passenger cars, number of, from U. S. 64
Express and heavy haulage service 41
Factories, automobile, in war work 22
Farmers' cost of maintaining horses 47
Farmers, importance of motor trucks to 40
Farmers' use of passenger cars 36
Farmers' use of trucks and tractors 44, 45, 46, 51
Farmers' use of automobiles in Pennsylvania 37
Farmers using passenger cars 35
Farmers, why they buy passenger cars 36
Foreign countries' automobile purchasing capacity 59
Foreign markets for automobiles 59
Garages in U. S. 3, 15
Gasoline production in U. S. 31
Government purchasers of motor vehicles 16, 17
Government recognition of motor truck importance 39
Government use of motor car service in Washington 21
Heavy haulage service 41
Highway mileage ratio of automobiles to, in U. S. 56
Horsepower classification of motor vehicles in use in U. S. 55
Horses, cost of, compared with motor trucks 44
Horses, cost of, on farms, annual average 47
How farmers use passenger cars 36
Import duties on cars, etc., into U. S. 63
Imports of motor vehicles 74, 75
Imports of automobiles from principal countries 75
Imports of motor vehicles and parts by Canada 30
Industry, automobile, census of 6
Industry, automobile, effect of war on 16
Industries, use of motor trucks by leading 43
Iowa farmers' use of trucks and tractors 51
Iron and steel used in passenger automobiles 33
Jobbers, automobile, in U. S. 3
Kerosene production in U. S. 31
Leading industries' use of motor trucks 43
License revenues rate of increase in U. S. 52
Licenses of motor vehicles in U. S. 52
Lubricating oil production in U. S. 31
Manufacturers, automotive, distribution by states 13
Manufacturers, body, parts and accessory in U. S. 2
Manufacturers, motor car, number in U. S. 1
Manufacturers, military articles supplied Government by 22
Manufacturers, vitality record in U. S. 14
Markets, automobile, of the world 59
Metals and rubber, quantities used in automobiles 33
Military articles supplied Government by automobile factories 22
Military cars and trucks shipped abroad 62
Military motor vehicle production 17, 18
Milk haulage in Wisconsin 48
Minnesota farmers' use of trucks 46
Motor car manufacturers, number in U. S. 1
Motor car production in U. S. 1, 9, 23, 24, 25
Motor car to poulation ratio in U. S. 5
Motor truck as an essential 38
Motor truck cost compared with horses 44
Motor truck importance to farmers 40
Motor truck importance recognized by Government 39
Motor truck imports 74
Motor truck production in U. S. 1, 25, 26
Motor truck production forecast for 1919 27
Motor trucks in war 38
Motor trucks operated in leading industries 43
Motor trucks used by farmers 51
Motor trucks used in related war activities 42
Motor vehicles, horsepower classification of those in U. S. 55
Motor vehicles imported 74, 75
Motor vehicles in New York State, registration by counties 58
Motor vehicles in use in the world 52
Motor vehicles in use in U. S. 5, 10, 52, 53
Motor vehicles, price classification of, in use in U. S. 54
Motor vehicles purchased by U. S. Government 16, 17
New York State registration by horsepower and registration fees 57
New York State registration by counties 58
Number of motor car manufacturers in U. S. 1
Number of motor trucks exported from U. S. 60, 61, 63, 66
Number of passenger cars exported from U. S. 60, 61, 63, 64
Occupational analysis of purchasers of passenger cars 35
Occupational use of motor trucks 43
Oil production in U. S. 31
Owners, automobile, in Europe 73
Parts makers in U. S. 2
Parts, value of, exported from U. S. 68
Passenger cars and trucks in U. S. 52, 53
Passenger car imports 74
Passenger car exports from U. S. 60, 61, 63, 64, 65
Passenger car production in U. S. 1, 24
Pennsylvania farmers' use of automobiles 37
Petroleum output of U. S. 31
Population, ratio of automobiles to, in U. S. 56
Population, ratio to motor cars in U. S. 5
Price and capacity analysis of truck production forecast for 1919 27
Price classification of motor vehicles in use in U. S. 54
Production, Canadian motor vehicle 30
Production of gasoline in U. S. 31
Production of motor cars in U. S. 1, 9, 23, 24, 25
Production of rubber tires in the U. S. 34
Professional users of passenger cars 35
Purchasing capacity, automobile, of different countries 59
Quantities of metal and rubber used in automobiles 33
Railroad mileage, ratio of automobiles to, in U. S. 56
Ratio of automobiles to population and highway and railroad mileage by states 56
Registration increase by years in U. S. 52
Registration, motor vehicles in U. S. 5, 10
Registrations, New York State 57, 58
Registration of motor vehicles in U. S. 52
Repair shops in U. S. 3, 15
Revenue from motor vehicle registration in U. S. 28, 52
Revenues from motor vehicle registrations in New York State 58
Rubber and metals, quantities used in automobiles 33
Rubber, consumption of crude, in U. S. 32
Rubber tire production in the U. S. 34
Sales arguments for farmers' use of motor trucks 44
Sales, possible automobile in the world 59
Shipments, automobile, car-load from factories in U. S. 7
States, automobile trade by classes and 15
State distribution of automotive manufacturers 13
Steel and iron used in passenger automobiles 33
Supply houses, automobiles, in U. S. 3, 15
Swiss automobile statistics 72
Switzerland's imports of motor vehicles 72
Taxation, unfair, on motor vehicles 28
Territories, non-contiguous, exports of automobiles to 71
Tire production in the U. S. 34
Tires, value of, exported from U. S. 70
Tractors used by farmers 51
Trade, automobile, by classes and states 15
Trailers, shipped to Army 19
Trucks used in related war activities 42
Trucks, motor, production of in U. S. 1, 25, 26
Use of automobiles in the world 59
Use of motor cars in Canada 5
Use of motor cars in Europe 5
Use of motor cars in U. S. 5, 10, 52
Users of automobiles in Europe 73
Users, occupational analysis of passenger car 35
Value of automobile engines exported from U. S. 69
Value of automobile parts exported from U. S. 68
Value of automobile tires exported from U. S. 70
Value of automobiles to Army 11
Value of automobiles to farmers 12
Value of motor trucks exported from U. S. 60, 61, 63, 67
Value of passenger cars exported from U. S. 60, 61, 63, 65
Vitality record of motor car manufacturers in U. S. 14
Volume and percentage of motor vehicle exports in 1918 61
Wages and salaries in automobile industry of U. S. 1, 2, 6, 8
Wages paid in Canadian automobile industry 30
Wages paid by motor car manufacturers in U. S. 1
Wages paid by body, parts and accessory makers in U. S. 2
War, effect of, on automobile industry 16
War, motor trucks' use in 38
Washington, motor car service in 21
Why farmers buy passenger cars 36
Wisconsin farmers' use of trucks 45
Wisconsin dairymen's use of trucks 48, 49, 50
World, automobile markets of the 59